

# HUDSON VALLEY FOOD HUBS INITIATIVE

**Executive Summary** 



Research conducted by Hudson Valley Pattern for Progress and the Urban Design Lab at the Earth Institute, Columbia University

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The Local Economies Project of the New World Foundation would like to thank the researchers, advisors, project partners, and all of the people who attended our listening sessions and agreed to be interviewed for this report. The overwhelming lesson of this past year is that there is immense dedication and knowledge in the Hudson Valley food system. It is our hope to continue to support and enhance these resources in the Hudson Valley to achieve a more resilient food system for the benefit of farmers and local communities.

We also owe a debt of gratitude for the time and valuable contributions of our advisory team and report reviewers:

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Julie Suarez New York Farm Bureau At the Local Economies Project (LEP), we believe that resilient agriculture is a cornerstone of local economies because farming sits at the intersection of health, the environment, education, business and economics. It is the primary objective of LEP to help identify and catalyze the necessary resources to develop a replicable model for local economic and community development, focusing on regional farmers and encouraging ongoing efforts to create a truly sustainable regional food system. We also believe that the Hudson Valley is an ideal place to demonstrate how this can be accomplished.

We recognize the many challenges facing agriculture and regional food systems. These include unpredictable weather in the face of climate change, the economic and structural challenges of a global food system, and the non-farm development pressure here in the Hudson Valley. We are also deeply committed to the idea that a sustainable food system is one that provides everyone access to high quality food. It is a tremendous comfort to know that the natural resources, human capital, and diversity of farming in our region provide both hope and opportunity for a very bright future here.

Our theory of change calls for a phased approach that begins with ensuring local ownership and economic viability of our farms and related businesses. As part of this effort, LEP commissioned a study from Hudson Valley Pattern for Progress, which engaged the very talented Sarah Brannen in its design and implementation. The study focuses on infrastructure issues for regional food systems, with a particular focus on the emerging interest in Food Hubs as a way to strengthen regional food systems. Broadly stated, the goal of the study is to analyze how to build capacity and infrastructure for the benefit of the Hudson Valley Region's farmers, citizens and communities.

At LEP we are pleased to present this report and welcome the discussion that it will stimulate. Working together with interested partners, we can make dramatic changes happen relatively quickly. Ultimately, this hastens the potential for our larger goals to unfold – a truly just food system that ensures healthy food for all, nurtures our environment, promotes fair trade and labor practices, and builds wealth at the local level.

We thank everyone who contributed to this report and look forward to our future work together.

Sincerely,

**Bob Dandrew**Director, Local Economies Project
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#### INTRODUCTION

This study occurs at a time when much of the national focus on local and regional food system development is turning to the need for infrastructure. After several generations of decline in the number of farms and farmland acres, along with increasing consolidation in the food system, there is now a strong and growing consumer demand for locally and sustainably produced food. Whether through farmers markets, community supported agriculture (CSA) programs, farm-to-institution initiatives, restaurants or grocery stores, the demand for local and sustainable food shows no signs of abating.

Although there has been progress in recent years in building consumer awareness about food, expanding direct-to-consumer market venues, and enacting policies to support local and regional food systems, many researchers and practitioners have concluded additional focus must be made on scaling up these efforts. The dialog among these researchers and practitioners is now focused on the means for increasing the scale of local food systems and helping small and mid-sized farmers access larger volume, wholesale markets. Past research has concluded that doing so will require a greater focus on aggregation, processing, and distribution infrastructure to better connect farmers in the local food system to these new market outlets. Food hubs have arisen as one means for addressing the need for infrastructure to scale up local food distribution and assist small and midsized farms access new markets.

#### STUDY SCOPE

A broad mission guided this study: build the capacity and infrastructure of a resilient food system for the benefit of Hudson Valley farmers and communities. To that end, this study sought to identify potential infrastructure challenges that hinder the growth of the local farm economy and whether food hubs could be one means for addressing these potential issues. Our research answers three specific questions:

<u>Research Question 1</u>: Are food hubs needed to support and strengthen sustainable agriculture and a regional food value chain in the Hudson Valley?

Research Question 2: Which food hub features could most benefit Hudson Valley farms and communities?

<u>Research Question 3</u>: Who are the potential partners for food hub development in the Hudson Valley?

To answer these research questions, we gathered qualitative and quantitative information. We analyzed data on agricultural production, processing, distribution, and food consumption in the Hudson Valley, New York City, and broader Northeastern regions. Additionally, we interviewed 113 farm and other food businesses, convened an advisory group, and held seven listening sessions attended by more than 200 people.

To determine whether food hubs would be a successful means for addressing any potential infrastructure gaps, we reviewed current literature on food value chains and food hub development. Additionally, we conducted a best practice review of 12 food hubs nationally to better understand their business models and finances. This enabled us to draw conclusions about food hubs' challenges and their means for achieving financial sustainability, lessons that could be applied locally.

#### **OVERVIEW OF FOOD HUB DEVELOPMENT**

The USDA reports there are nearly 200 examples of food hubs across the US, many of which have come into existence only recently. These new food hubs are a concept born of the movement toward local, source-identified, and higher value food. Food hubs, like this broader movement, are attempting to address challenges, such as the loss of farms and farmland, financial pressures on small and mid-sized farms, and broader environmental, health, and social issues in the food system. Yet, food hubs are also a response to the accompanying rapid increase in consumer demand for higher value, local foods.

Food hubs can be more specifically defined by their business structure and functions. Perhaps more importantly, they can also be defined by their mission and role in building food value chains. Food hubs are one of four general business structures: private enterprise, not-forprofit, cooperative, or public entity. Across these business types, food hubs serve two basic functions. They market and distribute local food that is differentiated from the conventional, commodity supply chain. In the case of food hubs, marketing is an active function, not just about branding, but also about pursuing market opportunities and cultivating buyers for local food products.

Food hubs aim to serve a transformational role in the food system. Through their activities, they fill a gap in the supply chain for small and mid-sized farmers by aggregating their product for sale through wholesale channels those farmers otherwise might not be able to ac-

cess independently. In doing so, they actively facilitate relationships along local food value chains and seek to bring added value, or "shared value" to farmers and local communities. The economic theory of Shared Value recognizes the symbiosis between businesses and their communities in so far as communities demand businesses' products and services, provide public infrastructure and resources, and can therefore provide a supportive business environment. Companies can create shared value by taking several steps to identify where societal needs overlap with company needs to enlarge the overall economic pie. Therefore, food hubs are organizational structures that seek to build relationships throughout the supply chain for local food and distribute added value among the food chain actors. In doing so, food hubs also seek to strengthen local food value chains longer-term.

#### **FOOD HUB BEST PRACTICES**

During our review of food hub literature, we learned the research on food hubs' finances and impact is limited. Our study therefore sought to partly fill this gap by conducting a best practice review. We selected 12 hubs to interview hubs based on three criteria: they were close to an urban market, there was anecdotal evidence of some measure of their success, and they provided an equal sample of each type of business structure—private enterprise, not-for-profit, cooperative, and public. These interviews led to seven lessons learned about food hubs' launch, operations, and finances:

- 1) Launch requires "anchor" buyers and sellers.
- 2) Farms may need initial assistance with packing and obtaining new food safety certifications.
- 3) Inventory management, quality control, and customer service are minimum requirements for business survival.
- 4) Products must be marketed as high value, sourceidentified with a connection to the farms that produce them.
- 5) Seasonality must be addressed, but some potential strategies exist.
- 6) Food hubs continue to struggle to achieve financial viability.
- 7) High quality staffing is one of the greatest challenges food hubs face, but also the greatest contributing factor to their success.

### EXAMINING HUDSON VALLEY FOOD VALUE CHAINS

The Hudson Valley is home to more than 3,100 farms and 474,000 farmland acres. These farms collectively produce more \$322 million of food each year. Dairy, fruit, and vegetables comprise the bulk of regional farm sales. However, there are also numerous farms that produce meat, poultry, and eggs. Based on data and interviews, we assess for each of these product types the region's productive capacity, processing capacity, distribution system, infrastructure resources, and market demand. Although grain is not currently a high volume product in the Hudson Valley, we also analyzed the value chain for grain as there is anecdotal evidence of growing demand locally.

From this analysis, we are able to draw conclusions about each value chain's particular strengths, weaknesses, opportunities and challenges for food hub development. Because our interviews returned information that cut across these product-specific value chains, we include a summary of cross-cutting themes as well. Below is a summary of the key findings from this analysis.

#### Fruit

Strengths and Weaknesses:

- The Hudson Valley remains a strong fruit-growing region.
- Given the size and concentration of orchard growers in the region, there are supportive resources, human capital, and physical infrastructure available to them and related businesses in the region.
- Despite these resources, the locally focused value chain and the mainstream value chains are not currently integrated.
- A weakness in the localized value chain is the lack of packing, storage, and processing infrastructure and services to facilitate access to wholesale channels, such as institutions and retailers.

Challenges and Opportunities for Future Development:

 The nascent, rapidly growing hard cider and microdistilling sectors in the region could be promising opportunities for fruit producers.

- The market for fresh and minimally processed fruit, especially non-citrus and fresh cut fruit, has a promising outlook nationally.
- The fruit sector in the Hudson Valley faces serious challenges due to recent weather events, the local climate, and climate change overall that increase financial risk for fruit growers and make adoption of some new environmental standards costly.
- Additionally, there has been a decades-long decline in the number of orchards and orchard acres that indicate the sector has been under some pressure.

#### **Vegetables**

Strengths and Weaknesses:

- The Hudson Valley vegetable sector benefits from robust and growing market demand in both the New York City and Hudson Valley regions that far exceeds the amount of vegetable production in the area.
- The number of vegetable farms and acres in some counties have increased, while the decline in the sector has slowed in other counties.
- There are already distribution infrastructure and relationships that allow vegetable farms to market their products through a variety of channels.
- Institutions express a desire to purchase more local produce, but purchase only small volumes of local produce, potentially due to price constraints, emphasis on processed products, reliance on distributors, and lack of time and knowledge to source locally.
- Despite Farm to Table Copackers and two additional fresh cut vegetable processors, the region lacks capacity for value-added vegetable processing, particularly fresh cut, to service small and midsized farms in the region.

Challenges and Opportunities for Future Development:

- Increasingly common weather events potentially threaten the productivity and resilience of vegetable farms in the region.
- Unlike the fruit growers, the vegetable growers we interviewed were less well networked and did not utilize shared local resources and infrastructure to the same degree.

 The market for Hudson Valley vegetables, though large, is competitive. This is true of both the mainstream, commodity supply chain and the local food value chain.

#### Dairy

Strengths and Weaknesses:

- Although the number of dairy farms has been declining steadily, the dairy industry remains a vital sector in Hudson Valley agriculture.
- Additionally, there is still a strong knowledge base for dairy production in the region.

Challenges and Opportunities for Future Development:

- The strong and growing demand for yogurt and cheese present an opportunity to Hudson Valley dairy farms.
- Farms that continue to market through the conventional distribution system may have difficulty seizing on this demand as they are price takers.
- Specialty producers may be able to better capitalize on this growing demand for value-added products, but also on demand among restaurants and retailers for local, source-identified dairy products. Their challenge will be making the investments necessary to begin or expand appropriately scaled, value-added dairy production.

#### Meat and Livestock Products

Strengths and Weaknesses:

- Beef production in recent years has been increasing, likely in response to consumer demand for alternatives to conventional meats.
- Additionally, there are a number of farmers who have been adopting alternative to conventional methods, such as using grazing and organic feed.
- Other types of small livestock are also promising sector for the Hudson Valley agriculture industry as there are several anchor farms.
- Across all of these types of livestock farms, there exists a community, albeit not yet explicitly formed, of farmers who are knowledgeable and could be drawn on for expertise in the future.

• One potential weakness that could hinder the growth in the Hudson Valley meat sector is the lack of processing capacity.

Challenges and Opportunities for Future Development:

- Given the strong and growing demand among buyers for local and other added-value meat, the Hudson Valley is likely well positioned to continue growth in this sector. In particular, the demand for organic and pastured livestock is experiencing considerable growth on the national scale.
- The amount of Hudson Valley land available for livestock grazing is not yet clear and could be a challenge to future growth in the sector.
- Another challenge to growth in the livestock sector is the ability of farmers to make high quality meat products that can sustain the farm. Several of the grass-based beef farmers we interviewed report their difficulties in covering their costs, given the longer time to raise cattle before slaughter and the cost of feeding them over the winter. Additionally, we heard differing perspectives on the taste and texture of pastured livestock. Both of these issues—the financial viability of grazed livestock and its culinary desirability—indicate a potential need for experimentation and research to develop and disseminate best practices for pastured livestock in the Hudson Valley.

#### Poultry and Eggs

Strengths and weaknesses:

- There are many farms in the Hudson Valley that produce poultry, many of which also produce other products. Additionally, there is a cluster of larger scale poultry and egg producers that contribute significantly to the Sullivan County economy.
- However, whereas the larger producers have adequate processing capacity through USDA facilities, there are no options for smaller and local farmers to use USDA facilities. Instead, they are able to process on-farm or through another 5-A exempt facility. However, relying on these processors limits their ability to market out of state and, depending on the exemption, through wholesale channels.

Opportunities and challenges for future development:

- One opportunity for future development could be to assist farmers in obtaining more processing licenses and helping them to market their products through wholesale channels, which are currently not well served by most poultry farms.
- One challenge to future development in this sector could be matching buyers to the producers on volume and price, as smaller and local farmers have smaller volumes and may be accustomed to higher price points from their direct-to-consumer venues.

#### Grain

Strengths and weaknesses:

- The greatest strength in the local grain value chain is the burgeoning market among livestock farmers, bakers, brewers, and distillers. All of these market segments, taken together, indicate a need for future development of local grain growing.
- Currently, the greatest weakness in the local grain value chain is the very small volume of grain grown locally, outside of conventional feed corn, and the lack of local experience in grain growing due to the small size of the sector.
- Additionally, because there is little grain growing activity, the processing sector is similarly underrepresented in the region and would require investment if grain growing were to increase.

Opportunities and challenges for future development:

- The Greenmarket rule, which requires bakers to use 15% local grains, development of micro brewing and distilling, and growth in small scale livestock farming offer a very good opportunity for future development of the grain sector.
- One major challenge to scaling the grain sector is the lack of technical knowledge on a regional scale as to the best varieties for local grains and to meet the needs of the local market.
- Additionally, given the limited acreage devoted to grain growing (aside from conventional feed corn), there may also arise a tension between the demand for food grain and feed grain.

#### **CONCLUSIONS AND RECOMMENDATIONS**

RESEARCH QUESTION 1: Are food hubs needed in the Hudson Valley?			
	Conclusions	Recommendations	
•	Our research suggests food hub development would benefit Hudson Valley farms and communities.	<b>Recommendation 1:</b> Invest in Hudson Valley food hub development to meet the needs of regional farmers and better serve the market for local food.	
	RESEARCH QUESTION 2: What food hub features would be most beneficial?		
	Conclusions	Recommendations	
•	Major strengths of the Hudson Valley local food system include the established relationships, pre-existing distribution routes, and infrastructure to help bring local farmers' products to the market.	Recommendation 2: Focus food hub development on two core functions: distribution and logistics, and marketing services.  Recommendation 2a. Target a variety of products i.e.	
•	Despite these pre-existing distribution channels, there remain several weaknesses in the local food distribution system that food hub development could address.  A number of the functions offered by food hubs	meat, dairy, and value-added products in addition to produce to maintain a year-round supply of products.  **Recommendation 2b.** Provide traceability, information about product sourcing and production methods, which are demanded by buyers.	
	could address these needs in the local food value chain and fall into two categories: distribution and logistics, and marketing services.	<b>Recommendation 2c.</b> Target anchor buyers in the retail and institutional markets.	
•	In addition to the two core functions of food hubs, distribution and logistics, and marketing services, there are several related needs in the Hudson	<b>Recommendation 2d.</b> Identify, train, recruit and support staff knowledgeable in the food industry and logistics.	
	Valley—on farm infrastructure, farm business and production planning, and value-added processing infrastructure.	<b>Recommendation 3:</b> Invest in food hub development by working within the existing distribution network and infrastructure.	
		<b>Recommendation 4:</b> Provide farmer business and production services to improve efficiency, increase production, and get "wholesale ready."	
		<b>Recommendation 5:</b> Enhance production, processing, and distribution infrastructure to strengthen the local food value chain and complement food hub development.	
		tential partners for food hub development?	
	Conclusions	Recommendations	
•	The concept of food hubs received strong support among most farmers, different types of buyers and all local distributors.	<b>Recommendation 6:</b> Recruit farmers and other food businesses that expressed an interest in participating in food hub development.	
•	There are also many local programs and organizations that could become valuable partners to food hub development.	Recommendation 7: Partner with existing organizations where possible to deliver services and help coordinate local food system information and resources.	

#### **NEXT STEPS FOR IMPLEMENTATION**

- Launch a new, service oriented local food distribution project to facilitate value chain development and provide food hub functions.
- Coordinate and target funding for on-farm infrastructure development.
- Launch a new initiative to provide business and production planning services to farmers.
- Identify funding and other resources to expand value-added processing infrastructure.
  - Invest in specialty dairy processing equipment and facilities and product development.
  - o Invest in high quality, local meat slaughter and processing capacity.
  - Explore fresh cut capacity for value-added produce.
  - Invest in grain production, milling and other processing.
- Establish a new network for information sharing, collaboration, and B2B networking in the Hudson Valley and New York City regions.
- Support additional analysis, including:
  - o Conduct a review of vacant and available land.
  - Research the capacity for increasing low density livestock grazing.
  - Commission a report on farm labor issues in the region.
  - Support scientific and practical research on crop conversation and farming methods.
  - Explore opportunities for food waste and composting.
  - Research and develop a marketing effort for Hudson Valley food.