Local Food System Assessment for Yolo and Sacramento Delta Communities

Executive Summary

A project of the Rural-Urban Connections Strategy (RUCS)

Prepared for: Delta Protection Commission
Prepared by: The Sacramento Area Council of Governments (SACOG)
In partnership with: The Hatamiya Group
Current Agricultural Conditions

Agriculture is the centerpiece of the Delta economy and benefits from incredibly productive soil, a moderate climate, multi-generational knowhow, and a prime location between major population centers in Northern California. The study delves into market opportunities in two of these regions specifically: the greater Sacramento area and the San Francisco Bay Area.

The case study area includes the portions of Yolo and Sacramento Counties within the legal Delta, encompassing 151,000 acres of agriculture production split between a variety of crops. The largest crops currently in production by acreage include alfalfa (31,900 acres, or one fifth of the study area), wine grapes (20,000 combined acres of white and red grapes) then corn, wheat and pears. By value the area’s top agricultural commodities begin with wine grapes, followed by pears, alfalfa, tomatoes, and cherries. Notably, the top twenty crops in the Delta study area account for 95 percent of agricultural value.

The gross value of this substantial agricultural output varies by year based on annual commodity prices. The study’s modeling efforts estimate the value of agricultural production coming off Delta farms in Yolo and Sacramento Counties at around $300 million, not including the further substantial economic activity associated with the larger food system.

Emerging Market Opportunities

Agriculture in the Delta is well positioned to capitalize on the rapidly expanding demand for locally grown food, a sector that has witnessed nearly double digit percentage growth year over year. Likewise, consumer willingness to pay a price premium for local, source-identified food also continues to grow, and recent estimates have this price premium at around 20 percent from retail transactions. Even with substantial growth in the local market in prior years there is still substantial unmet capacity for expansion as individual households, restaurants, grocery stores, distributors, and institutions such as schools and hospitals across northern California continue to seek out locally-grown food.

The nearly 10 million residents of the Sacramento and Bay Area regions consume over 6.2 million tons (12.5 billion pounds) of food each year. Notably, over half of this consumption is for fruit and vegetables. Markets in these produce crops are particularly poised to benefit from increased local consumption trends. Households in metropolitan Sacramento to spend over $6,700 each year for food; this figure rises to $8,400 in the Bay Area.

ABOUT THE PROJECT

The Delta Protection Commission’s 2030 strategic plan highlights the importance of agriculture in meeting the vision of a healthy, thriving Delta into the future, and lays out a number of objectives to protect and enhance the long-term viability of agricultural lands and operations. In this case study, the Sacramento Area Council of Governments (SACOG) and The Hatamiya Group have partnered with the Delta Protection Commission in deploying SACOG’s Rural-Urban Connections Strategy (RUCS) to help answer questions about how to stimulate agricultural-based economic development in the Delta’s rural communities in a manner that aligns with a shared vision of the Delta: “the ideal synthesis of cultural, ecological and agricultural values in a sustainable, healthy, and celebrated way of life.”
Agricultural infrastructure encompassing aspects of aggregation, packing, processing, storage, marketing, and distribution capacity—commonly referred to as food hubs—can help overcome the barriers farmers face in growing for local market demand. Likewise, a food hub can also begin to offer contracts to local growers for fresh produce, and, as it reaches scale, further processing to provide a shelf-stable product for both local and export markets.

Drawing on the RUCS toolkit, the project team conducted an in-depth financial feasibility analysis of a food hub serving agricultural production in the portions of Sacramento and Yolo counties within the legal Delta. The food hub model developed in this work identifies crops currently or with the potential to be grown in the study area that respond to pronounced unmet demand, have a high ratio between purchase and sales prices, capture changes in food consumption trends, and allow for value-added activities and a year-round supply.

Overall the project team finds this food hub model serving Delta agriculture to be financially feasible for the hub operator and supplying farmers. Like many business start-up activities, the financial estimates suggest the facility would operate at a net loss during its initial years, as volumes are low and the operator incurs equipment investment expenses and other capital costs associated with establishment. Yet as the food hub facility reaches adequate scale its cost structure shifts to a positive cash flow. At full capacity the Delta-serving food hub would generate revenue of over $16 million a year with an annual net positive cash flow of over $2.2 million to the hub operator.

The food hub facility specified for this project provides a high economic return, due to the unique crop mix tailored toward local produce markets. However, it is also important to note the considerable challenges in siting new infrastructure and development investments in the study area, due largely to flood protection regulations. Stakeholders must weigh potential financial returns against these challenges.

The project includes a pro forma toolkit as a separate Microsoft Excel workbook. This toolkit provides the detailed financial reporting of the business model while also allowing for customizable applications testing different crop supply, cost assumptions or market conditions.

Barriers to Growing for the Local Market

As a major agricultural economy, the greater Delta region has developed capacity for aggregation, processing, and distribution. Yet with the notable exception of the emerging cluster of activity around resident wineries, much of the agricultural infrastructure in the Delta has closed or consolidated through time.

The lack of mid-scale facilities makes it difficult for individual growers to reach the scale needed to access the emerging local demand throughout the mega-region. Without this type of locally-serving infrastructure, produce distributors and wholesalers are challenged to source locally-grown produce at a cost-effective, consistent and reliable scale, instead often purchasing large amounts of produce from outside the region.
The case study conducts a range of agricultural scenarios to detail the magnitude of economic, environmental and other impacts from potential cropping pattern changes that respond to emerging market opportunities. The three identified scenarios—continuing recent trends, advancing a food hub investment, and supporting agritourism—demonstrate varying strategies to leverage the local food assessment for Yolo and Sacramento County Delta communities. The scenarios are constrained by market and environmental conditions to represent feasible near-term shifts (over a seven-year timeframe) that respond to different policy and strategic goals. Together, the scenarios demonstrate possible strategies that Delta stakeholders may explore to accelerate growth in the local food system.

The first scenario measures the outcomes associated with the continuation of recent trends in cropping patterns over the last several years as farmers have responded to changing market conditions. The scenario shows some steady increases in study-wide economic indicators compared to the base case of existing conditions, illustrating the momentum in food system development through time.

The study’s final two scenarios however—one encompassing an investment in a food hub facility, the other fostering increased agritourism—offer more proactive strategies to accelerate this economic growth for Delta farmers. Of the strategies modeled in this case study, the food hub scenario provides the highest net revenue and return on investment (ROI) for Delta growers. And with the highest overall gross returns, the agritourism scenario sheds light onto further possible strategies to support agricultural-based economic development. Both the food hub and agritourism scenarios also carry the potential to capture more economic value, not only on the farm, but in further value-adding activities within the larger food system. Yet the difficulty in siting infrastructure due to flood protection regulations may mean this off-farm activity is captured on the periphery or outside the study area.

All three scenarios result in a higher modeled level of farm labor demand compared to the existing conditions; this labor demand translates into potential jobs on Delta farms. The agritourism scenario leads the way in new on-farm labor, followed by the food hub and trend scenarios. While this increase in demand represents a job creation opportunity in the Delta, there are also serious challenges given the constrained nature of the agricultural labor market. In addition to the labor generated on the farm, the scenarios—especially the food hub and agritourism—also would lead to a greater diversity of off-farm employment opportunities, such as processing and distribution in the food hub scenario or commercial establishments supporting agritourism.

Finally, the modeled outputs of the scenarios showcase the connection between higher agricultural values and jobs, and the need for a stable water supply. While the trend scenario would actually use less water than current conditions, the food hub and agritourism scenarios (the two with the highest economic and labor returns) would require slightly higher water usage in the agricultural system. However, the additional acre feet of water demand in the hub and tourism scenarios represents less than one tenth of one percent compared to existing conditions.

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<thead>
<tr>
<th>BASE</th>
<th>TREND</th>
<th>FOOD HUB</th>
<th>AGRITOURISM</th>
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<tbody>
<tr>
<td>Acres</td>
<td>151,000</td>
<td>1,075</td>
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<tr>
<td>Total Costs</td>
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<td>Gross Returns</td>
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<tr>
<td>Labor (hours)</td>
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<td>3.1</td>
<td>3.1</td>
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<tr>
<td>H2O (acre inch)</td>
<td>3.3</td>
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*Value shown in Millions (x 1,000,000)
Conclusion

This case study’s local food assessment for Yolo and Sacramento County Delta communities uses the RUCS toolkit to demonstrate the role of agriculture to the Delta economy, document emerging market opportunities for local agricultural producers, and explore possible strategies to accelerate economic growth and job creation in the local food system.

Overall, the study’s analysis and scenarios show a range of strategies to stimulate food system development in a manner consistent with a shared vision for a healthy, sustainable Delta. Notably, the study provides indicators of the economic and other impacts as Delta farmers continue to expand on local market opportunities. The case study’s trend scenario shows current food system momentum, while the food hub and agritourism scenarios demonstrate strategies to accelerate this trend and further activate the local market opportunity. All three scenarios are small-scale shifts constrained by market and environmental factors; as the strategies embodied by these scenarios grow through time, so too does the potential for further economic return and job creation. Yet while the strategies also provide for further economic activity off the farm, the difficulty in building new infrastructure in the Delta may mean this activity occurs farther along the supply chain, not on the farm. As such, the analysis and planning contained in the case study helps also provide connection to how Delta agriculture fits within the larger food system.

The scenario analysis for this study was generated using SACOG’s 2012 Crop Map and data from the ‘Cost and Return Studies’ series published by UCCE & UC ANR, available online at: coststudies.ucdavis.edu.

For more information and a full list of references, view the full case study technical report, available online at: www.sacog.org/post/delta-case-study.