Chapter 1. Introduction

Context, Definitions, and Goals: What is the Food System?

A food system is defined as a chain of activities connecting food production, processing, distribution, consumption, and waste management, as well as all the associated regulatory institutions and activities.[6] Cities are becoming increasingly concerned with how food relates to the urban environment and are encouraging the development of "sustainable food systems" that contribute to quality and livable neighborhoods, meet the health and nutrition needs of residents, and promote economic vitality, social justice, local self-reliance, and environmental sustainability[7] A food system assessment can provide a valuable tool to begin to understand connections between food system mechanisms and outcomes, and to formulate policy and activities to improve these outcomes.

While people everywhere need to eat, cities offer particular challenges in terms of the number and diversity of people who need to be fed, and the amount of concentrated food that must be organized through production, distribution, processing, and retail channels to serve urban populations. Food continues to be a problematic piece of the urban system, particularly as it relates to public health, economic and social justice, as well as environmental sustainability. Such current and interdisciplinary issues such as obesity, fossil fuel consumption, urban sprawl, and job preservation/growth can all be seen through a "food lens." Concerns over quality of food, access to food, and the long-term environmental impacts of both patterns of agriculture and urban food consumption present a number of problems that current market-based food systems have not adequately addressed.[8]

Currently, no comprehensive evaluation of the food system and its relation to these areas of concern (livable neighborhoods/quality of life, health and nutrition, economic vitality, social justice, local self-reliance, and environmental sustainability) exists for the City of Oakland. Within Oakland, many different actors are currently working within the food system, such as health professionals, school officials, waste management companies, food retailers and processors, farmers, community- and faith-based organizations, and various City and County staff. However, increased coordination and collaboration would allow these actors to better understand each other's contributions to the food system as a whole and understand where there are areas for improved sustainability.

In recognizing that Oakland's food systems should be a vital component of the City's Sustainability Plan, the Mayor's Office of Sustainability initiated this study in order to begin a process of evaluating each element of the food system in Oakland and to provide key

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[6] Kaufman, Jerome and Kameshwari Pothukuchi. "The food system: A stranger to the planning field." Journal of the American Planning Association, 66.2 (2000): 113–124.

[7] Koc, Mustafa; MacRae, Rod; Mougeot, Luc J.A.; Welsh, Jennifer, Eds. "Introduction: Food Security is a Global Concern." *For Hunger-Proof Cities: Sustainable Urban Food Systems.* International Development Research Centre. Ottawa, ON, Canada. 1999.
San Francisco Food Systems. "2005 San Francisco Collaborative Food System Assessment." The San Francisco Foundation Community Initiative Funds. 2005. Nov. 2005.
<http://www.sffoodsystems.org/pdf/FSA-online.pdf>.
8 "Food System Planning — Why Is It a Planning Issue?: An overview from APA's Divisions Council." *American Planning Association.* 2 November 2005.
<http://www.planning.org/2006conference/sessionproposal/foodsystembg.htm>.

baseline information on the various activities that represent it. To guide the study five goals were proposed:

Goal 1:   **Food Security**
Ensure that no Oakland resident experiences hunger. Ensure that access to safe and nutritious food is not limited by economic status, location, or other factors beyond residents' control.

Goal 2:   **Urban Agriculture and Waste Reduction**
Maximize Oakland's self reliance and capacity to grow and provide healthy local food for its citizens through community and rooftop gardens, farmer's markets, community supported agriculture, and other urban agricultural activities; and simultaneously promote a "closed-loop" system that makes use of food waste recovery while reducing energy use.

Goal 3:   **Economic Development**
Promote and revitalize economic development opportunities in the food sector that create jobs and re-circulate financial capital within the community. Encourage marketing and processing practices that create more direct links between local producers and consumers.

Goal 4:   **Agricultural Preservation**
Support the preservation of the region's foodshed by encouraging consumption of regionally grown food that uses less chemical and energy-intensive production practices and emphasizes local inputs. Support Smart Growth policies that direct growth away from prime agricultural land.

Goal 5:   **Public Education and Capacity Building**
Increase public "food literacy" and build capacity within communities to make food-related choices that positively influence public health and long-term sustainability.

The purpose of this study is two-fold. First, it is to **provide the City and community with an initial comprehensive evaluation and key baseline information on each element of the food system in Oakland**, and where appropriate, the surrounding region (for a detailed definition of the food systems components, see "Food Systems Components," p. 3). This baseline analysis will allow City policymakers and staff to consider the impact that the food system might have on areas of public concern, particularly as it relates to five goals above.

The second purpose of the study is **to assess the potential for increasing the consumption of local and regional foods among City residents.** To this aim, the Office of Sustainability proposed an objective to have at least 30 percent of the City's food needs sourced from within the City and immediate region. This research includes exploring how systems of production, distribution, processing, consumption, and waste, as well as city planning and policymaking could support this objective. This percentage may be broken down between "regional" and "urban" food production (i.e., food that comes from the regional "local food shed" versus food that was produced within the City of Oakland).

An integral piece of the sustainability dialogue surrounding sustainable food systems is the promotion/supporting of local foods to sustain the City's food needs. Local foods have the potential provide a number of economic, environmental, and community benefits to the City of Oakland, by increasing the community's overall food security, reducing price vulnerability (especially in the face of rising fossil fuel costs), and providing fresher, more nutritious seasonal products.[9] The effect of consuming local foods will impact all sectors of the food system, and these impacts are considered in this study.

The questions that this study hopes to answer are largely part of a "Phase I" processes for the City of Oakland. While this study does intend to generate specific policy suggestions for Oakland in order to better address the goals outlined above, as well as begin the planning process for the "30% local" policy, this effort is essentially a beginning on which further action (e.g., studies, inventories, surveys, program development) should be based.

During the last decade, "community food systems assessments" have been undertaken in communities across the United States and Canada.[10] These assessments have ranged in focus, from a state, national and global level, to the county or regional level, and down to the neighborhood and city level. The proposed study, while conducted at the municipal level, also reveals the broader impact of food systems beyond Oakland's borders – food is an issue of scale that impacts neighborhoods, cities, regions, and beyond. An implicit component of this study is to foster dialogue about how food policy in Oakland relates to the "bigger picture." The interrelated and systemized nature of food systems means that no project attempting to address sustainability can be undertaken without making this connection. Here, sustainability in food systems is used to mean the "Three E's" model: Environment, Economy, and Equity.[11] This model suggests that social development must include and engage all three elements in order to achieve long-term tenability.

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[9] Koc, Mustafa; MacRae, Rod; Mougeot, Luc J.A.; Welsh, Jennifer, Eds. "Introduction: Food Security is a Global Concern." *For Hunger-Proof Cities: Sustainable Urban Food Systems.* International Development Research Centre. Ottawa, ON, Canada. 1999.

[10] For a selection of 9 case studies and a comparison of the methodology used in each, see: Pothukuchi, Kameshwari; Joseph, Hugh; Burton, Hannah; Fisher, Andy. Eds Siedenburg, Kai; Pothukuchi, Kameshwari. *What's Cooking in Your Food System?: A Guide to Community Food Assessment.* Community Food Security Coalition. Venice, CA: 2002

[11] Berke, Philip R. and Maria Manta Conroy. "Are We Planning for Sustainable Development?: An Evaluation of 30 Comprehensive Plans." *Journal of the American Planning Association.* 66.1 (2000): 21-33.

For the purposes of this assessment focus will be applied to the city level, drawing connections to broader levels of analysis when appropriate. The scope of this study will cover the "core components" of the food system in relation to the five goals outlined by the Mayor's Office of Sustainability. These components are described below:

Food System Components[12]

Production   *The cultivation of edible plants and domestication of animals*

- "Urban" production in this component includes all forms of urban agriculture (community or school gardens, roof-top gardens, urban greenhouses, edible landscaping, backyard gardening)

- Rural agricultural production (the "Regional Food Shed") is also part of the local food production system

Processing   *All processes of Value-adding; transforming food into food products*

- Examples are bakeries, commercial kitchens, food packaging

Distribution   *Transporting, storing, and marketing food products to consumers*

- Wholesalers, brokers, food warehouses, logistics, Community Supported Agriculture (CSA's), and other direct marketing sources (e.g. farmer's markets)

Consumption /   *All activities and processes by which an individual, society and culture*
Retail   *acquires (e.g. purchases, strategizes, manages, ingests, digests) and utilizes (e.g. cooks, ritualizes, presents) food material that has been produced and distributed.*

- Grocery stores, farmer's markets, restaurants, institutions, home kitchens

Waste Management   *The series of activities where discarded food materials are collected, sorted, processed and converted into other materials and used in the production of new products.*

- Backyard composting, large-scale composting, edible food waste recovery, recycling, land-filling

Food Systems Assessment Methodology

Community food systems assessments are a relatively new way of analyzing a set of community concerns around some aspect of food. The methodology of this assessment was greatly informed by some of the established models, including the Community Food Security

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[12] Modified from the "2005 San Francisco Collaborative Food System Assessment", http://www.sffoodsystems.org/pdf/FSA-online.pdf; Mid-Atlantic Consortium. "2004 Annual Report: Partners Growing Toward the Future, Food Systems Consortium Highlights." Nov. 2005. <www.foodsystemconsortium.org/files/Consortium_InsideFINAL.pdf>

Coalition's[13] (CFSC) and others who have developed key principles and guidelines.   Notably, we use the CFSC definition of **community food security** as a "condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice".[14]

The CFSC's six guiding principles of community food security are as follows:

Low Income Food Needs	Like the anti-hunger movement, CFS is focused on meeting the food needs of low income communities, reducing hunger and improving individual health.
Broad Goals	CFS addresses a broad range of problems affecting the food system, community development, and the environment such as increasing poverty and hunger, disappearing farmland and family farms, inner city supermarket redlining, rural community disintegration, rampant suburban sprawl, and air and water pollution from unsustainable food production and distribution patterns.
Community Focus	A CFS approach seeks to build up a community's food resources to meet its own needs. These resources may include supermarkets, farmers' markets, gardens, transportation, community-based food processing ventures, and urban farms to name a few.
Self-reliance & Empowerment	CFS projects emphasize the need to build individuals' abilities to provide for their food needs. Community food security seeks to build upon community and individual assets, rather than focus on their deficiencies. CFS projects seek to engage community residents in all phases of project planning, implementation, and evaluation.
Local Agriculture	A stable local agricultural base is key to a community responsive food system. Farmers need increased access to markets that pay them a decent wage for their labor, and farmland needs planning protection from suburban development. By building stronger ties between farmers and consumers, consumers gain a greater knowledge and appreciation for their food source.
Systems-Oriented	CFS projects typically are "inter-disciplinary," crossing many boundaries and incorporating collaborations with multiple agencies.

However, the specific goals of this assessment required a particular approach, one that balanced our resource limitations and yet allowed us to utilize a grounded, systematic

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[13] Hamm, Mike and Anne Bellows, "Six Basic Principles of Community Food Security." *Community Food Security Coalition.* 8 March 2006. <http://www.foodsecurity.org/views_cfs_faq.html>.
[14] Ibid., "What is Community Food Security."

approach in assessing the City's existing strengths, opportunities, and challenges with regard to existing food system activities.

The limitations were particularly relevant to the extent to which broad community participation to identify local food issues and opportunities, as well as plan or recommend programmatic responses can be supported. Given this limitation, effort was made to identify and include a diverse, multi-faceted group of stakeholders, including key community based organizations, City staff, and private businesses whose work pertains to the food system.

When we began this research, it was with few concrete "facts" on which to build the possibility of creating a new space within Oakland for local food and a sustainable food system. Would it be possible - without concrete numbers on existing local food sales and consumption - to generate a local food goal that was pragmatic, possible, and yet still bold and ambitious? What is the best definition of "local" food for a city like Oakland, one that incorporates the differences inherent in natural ecosystem diversity, that contains sufficient productive agricultural acreage, and yet maintains a tangible and meaningful relationship between the city and farm? How could we begin to map the relationships between food security and nutrition, and local food in a substantive way?

One of the major challenges of conducting a food systems assessment such as the one presented here is piecing together existing data from multiple sources and identifying knowledge gaps. These gaps are important because they represent excellent opportunities for research and policy action as Oakland transitions to a sustainable food system. Our attempts to "fill" these knowledge gaps represent both careful analytical research of dozens of different public data sources, policy and institutional analyses, and open-ended interviews with "Key Actors" in the Oakland food system. These actors include members of the public, private, and non-governmental sector, who were chosen for the significant contributions that the organizations or institutions they represent make to the Oakland food system, for their personal knowledge and expertise, and for their insights into potential policy directions.

While the organizations and interests identified in this study are by no means a comprehensive assemblage of all food systems interests, they represent a selection of those that may be particularly influential. The intention of including Key Actors (and indeed, conducting the study with the explicit belief that they should serve to guide the direction of work) in the development of this study was first to allow knowledgeable stakeholders to include resources or data they have independently collected that has bearing on the scope of the food system assessment, and to articulate their opinions, desires, and concerns with regards to the goals of the study, and current or potential City action on food systems.

In addition, to the invaluable information these sources have provided, we have made informed estimations based on our strategic vision and values.

Some of the important concepts generated by this assessment include:

- A set of goals that reflect the principle that sustainable cities improve the health, welfare, and general quality of life of all residents, regardless of income or other

socio-economic characteristics, and that food is a major area in which sustainability should be pursued (see Chapter 1, "Introduction")

- A local food-shed for Oakland that emphasizes existing agricultural productivity and highlights the potential that both urban food production and new, sustainable models of rural production have to offer (see Chapter 2: Production and the scenario for 30% Local Area Food Production in Chapter 6.)

- An identification of existing City resources that could be potentially utilized in the advancement of sustainable food system goals (see "City Initiatives and Policies" in Chapters 2-5, as well as Chapter 6: Conclusions and Recommendations)

- A framework for developing a food policy council and integrating its activities into City development and practices (see Chapter 6: Conclusions and Recommendations)

We invite you to read this document as a starting point, both for further food systems research and what will hopefully become a much larger discussion around food and sustainability in the City of Oakland.