Minneapolis Food Action Planning: Proposed Framework

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What is the food system?

Agricultural Food Production (Trans-boundary)

Agricultural Food Production (Local urban Agriculture)

Processing, wholesale, distribution & Sales

Diets & community-wide demand

Waste disposal

People, business, institutions
Another visualization of the food system

Community-wide food demand (Hennepin County)

**Residential** | food prepared and eaten home, shaped by residential diets

**Commercial** | food served at restaurants, eaten by commuters, residents & other visitors, shaped by diets

**Industrial** | agri-food inputs to processing industries within the city

Larger scale & local urban agricultural production

Larger scale & local urban processing

Food waste

*Dot size proportional to total city demand*
What are various outcomes associated with the food system?

- Agricultural Food Production (Trans-boundary)
- Agricultural Food Production (Urban Ag)
- Processing, retail, wholesale, distribution
- Diets & community-wide demand
- Food waste generation & management
- Governance extends across the whole system
- Greenhouse gas (GHG) emissions & other env. impacts
- Climate resilience
- Economy
- Health & well-being
- Greenhouse gas (GHG) emissions
- Energy, fertilizer
- Justice & equity

Sustainable Healthy Cities
Co-produced framework for assessing social justice & equity across food system components & outcomes

Co-developed by the Sustainable Healthy Cities Network
**Schedule:** Topics introduced every 2 months at food policy council meetings with follow up time for discussion in the next month

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>May 15</td>
<td>2019</td>
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<tr>
<td>Jul. 24</td>
<td>2019</td>
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<td>Sept. 11</td>
<td>2019</td>
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<td>Nov. 13</td>
<td>2019</td>
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<tr>
<td>Jan. 8</td>
<td>2020</td>
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<tr>
<td>Mar. 11</td>
<td>2020</td>
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6 topics are fully aligned with Milan Food Pact
What’s unique about Minneapolis’s Food Action Planning Process?

• Community engagement process taking place over 18 months and bringing together multiple stakeholders (NGOs, small businesses, community groups), public-at-large & university knowledge partners in a structured way

• This would be a first food action plan that takes a full systems view and looks at multiple outcomes with quantitative metrics (to the extent possible) to track progress

• A pioneering plan that prioritizes & integrates social justice & equity across both outcomes and food system components

• Food action plan intersections with climate action, economy & health
A few definitions
Equity & justice: definitions and ways of measuring

City of Minneapolis equity and racial equity definitions (2014):

**Equity:** Fair and just opportunities and outcomes for all people

**Racial Equity:** The development of policies, practices, and strategic investments to reverse racial disparity trends, eliminate institutional racism, and ensure that outcomes and opportunities for all people are no longer predictable by race.

Sustainable Healthy Cities definition of equity & justice with focus on measurements

Inequality is a measure of sameness or difference across any population. **Equity** addresses both inequality and fairness in distribution of burdens and benefits across society (Dempsey et al.), with attention to underserved or populations, i.e., by gender, race, economic class, disability, sexual orientation (Ramaswami 2019). **Social justice** provides greater attention to the historical and institutionalized roots of inequities. Equity can be measured both in terms of differences in the distribution of determinants (food access, etc.) and outcomes (health, life expectancy) as well as procedural equity (participation).

Other definitions: Social equity implies fair access to livelihood, education, and resources; full participation in the political and cultural life of the community; and self-determination in meeting fundamental needs” (Summers & Smith, 2014: 718).
Examples of inequity in distribution: grocery store access

USDA designated “Low Access Areas”

Areas that are both low income & lacking a grocery store within 1/2 mile)
Minneapolis Garden Lease Program
Minneapolis Farmers Markets
Examples of inequity in health outcomes: life expectancy

Life expectancy (in years) at birth

- No data
- <74.8
- 74.8-78.8
- 78.8-82.9
- 82.9-89.4

Centers for Disease Control
Equity of health outcomes: obesity

Percentage of Census Tract self-reporting as obese (BMI >30)

- 17.6 - 22.9%
- 22.9 - 27%
- 27 - 31.2%
- 31.2 - 36.9%
- 36.9 - 38%

Centers for Disease Control
## Defining other food system outcomes

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Greenhouse gas emissions (GHGs)</td>
<td>Greenhouse gas emissions (carbon dioxide, methane, nitrous oxide) emitted within and outside the city boundary as a result of all trans-boundary food system activities inclusive of agricultural production serving urban demand, transport &amp; distribution, processing, retail, use and waste management</td>
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<tr>
<td>Climate resilience impacts</td>
<td>“Resilience is the capacity to deal with change and continue to develop” (Stockholm Resilience Center), specifically referring here to flooding and heat risks.</td>
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<tr>
<td>Other environmental impacts</td>
<td>Environmental impacts, both within and outside the city boundary as a result of all trans-boundary food system activities inclusive of agricultural production serving urban demand, transport &amp; distribution, processing, retail, use and waste management. We focus on land and water use for this analysis.</td>
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<td>Health</td>
<td>Measures of physical health status including life expectancy, disease prevalence</td>
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<td>Well-being</td>
<td>“…wellbeing can be described as judging life positively and feeling good” – U.S. Centers for Disease Control. There are both cognitive and emotional measures of well-being that the Sustainable Healthy Cities Network measures</td>
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<tr>
<td>Economy</td>
<td>Economic considerations such as wealth, income &amp; employment</td>
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## Definitions of multiple food system components

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<th>Component</th>
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<td>Diets &amp; community demand</td>
<td>All food consumed and used city-wide, including food eaten by residents both in and outside the home (with attention to individual diets shaping this demand); by visitors to the city and by industrial food processors (processing food for both local consumption &amp; export)</td>
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<tr>
<td>Agricultural food production</td>
<td>Production of agri-food (agriculture for food products including: oilseed, grain, vegetable, fruit, nut, greenhouse, sugar, other crop, poultry &amp; egg, diary, beef, other animal and fish farming) serving urban demand both within and outside the city, as well as local production for local consumption &amp; export from the city</td>
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<tr>
<td>Processing, retail, wholesale, &amp; distribution</td>
<td>All activities related to distribution, processing and sale of food and beverages between the stages of production &amp; final consumption</td>
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<td>Food waste generation &amp; management</td>
<td>Generation and management of food waste both avoidable (i.e. edible) &amp; unavoidable (i.e. peals, kitchen scraps) across all stages of the supply chain (production, processing, distribution, retail, final consumer)</td>
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<tr>
<td>Governance, finance &amp; implementation</td>
<td>Governance, finance and implementation mechanisms to achieve food system outcomes</td>
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Food systems outcomes relative to greenhouse gas emissions, climate resilience & other environmental impacts

- 85% of global water use
- 30% of global GHG emission
- 11% of land dedicated to crop production
- Cities can be 1.8–5.4°F warmer than surrounding areas

GHG emissions & other environmental impacts

Climate resilience

EPA, Vermuelen et al 2012, Gleick, Ramankutty
Food system outcomes relative to health, well-being & economy

Health
1 in 5 deaths globally related to poor diet

Well-being
Studies suggest psychology & community benefits of gardening

Economy
$2.8 billion direct farm to consumer sales in 2017 (out of ~$700 billion)

Global Burden of Disease, Ag Census
Co-produced framework for assessing social justice & equity across food system components & outcomes

- Topic 1 | Food justice & equity
- Topic 2 | Diets & community demand
- Topic 3 | Agricultural food production
- Topic 4 | Processing, retail, wholesale, distribution
- Topic 5 | Food waste generation & management
- Topic 6 | Governance, finance & implementation

Builds from Ramaswami et al. 2019 – Sustainable Healthy Cities Network
Thank you!

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