

# FoodNYC

---

A Blueprint for a Sustainable Food System



Manhattan Borough President Scott M. Stringer  
February 2010



## ACKNOWLEDGEMENTS

The Borough President thanks his dedicated staff who helped develop and publish this report. In particular, the Borough President thanks Jeni Clapp (Deputy Director of Policy and Research), the primary researcher and writer of this report. The Borough President also recognizes the substantive contributions made to this report by Shira Gans (Small Business and Economic Development Policy Analyst), Anthony Borelli (Director of Land Use, Planning & Development), Brian Cook (Senior Urban Planner & Policy Advisor), and Scott Schell (Senior Advisor and Policy Director).

The Borough President also wishes to extend his thanks for the hard work of the following staff and interns: Rose Pierre-Louis (Deputy Borough President), Steve Corson (Investigative Policy Analyst), Alaina Gilligo (Chief of Staff), Sascha Puritz (Director of External Affairs), Sari Bernstein (Deputy Director of External Affairs), Andrew Doba (Communications Director), Hamna Mela, Becca Lewis, and Caesar Alfano.

The content of this report could not have been developed without the generous support of New York University, which admirably fulfilled its ambition of being a private university in the public service by partnering with the Borough President's Office to stage last December's NYC Food & Climate Summit. Equally responsible for generating this work product is the unique not-for-profit, Just Food, an invaluable leader in the food policy field.

Finally, the Borough President wishes to extend his appreciation for the support and knowledge of the NYC Food & Climate Steering Committee Members and panelists whose guidance and ideas helped produce this report. In particular, he wishes to extend his thanks to the following committee members for the substantial contributions they made in shaping this document: Jacquie Berger, Nadia Johnson, Anna Lappé, Joan Gussow, Ed Yowell, Alexa Van de Walle, Kerry Trueman, Jen Small, David Haight, Fern Gale Estrow, Jeremy Friedman, Caroline Wallace, Kubi Ackerman, Michael Conard, Christine Datz-Romero, Rain Henderson, Jeff Heehs, Mark Dunlea, and Daniel Bowman Simon.

## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION</b>	<b>5</b>
<b>II.</b>	<b>CURRENT POLICY FOUNDATIONS</b>	<b>7</b>
<b>III.</b>	<b>REPORT RECOMMENDATIONS</b>	<b>9</b>
<b>1.</b>	<b>Urban Agriculture</b>	<b>9</b>

Goal: Establish food production as a priority in New York City for personal, community, or commercial use by the year 2030.

- Assess Land Availability and Suitability for Urban Agriculture
- Create a Citywide Urban Agriculture Program
- Ensure the Permanence of Community Gardens
- Facilitate the Development of Rooftop Agricultural Greenhouses

<b>2.</b>	<b>Regional Food Production</b>	<b>12</b>
-----------	---------------------------------	-----------

Goal: Promote and support regional agriculture by connecting upstate and Long Island farms with downstate consumers, and by mapping the food grown and sourced from the region within approximately 200 miles of New York City.

- Determine the Capacity of the Regional Foodshed
- Develop a State Strategy for Farmland and Food Production
- Accelerate the Protection of New York’s Farmland

<b>3.</b>	<b>Food Processing And Distribution</b>	<b>15</b>
-----------	---	-----------

Goal: Increase the sale and consumption of regionally grown foods by expanding regional distribution and local processing capacity.

- Modernize and Expand Hunts Point Produce Market
- Build Small-Scale Wholesale Farmers Markets
- Promote Public Investment in Processing and Distribution Facilities

<b>4.</b>	<b>New Markets</b>	<b>18</b>
-----------	--------------------	-----------

Goal: Increase the number and type of retail food outlets that deviate from the traditional grocery store model by identifying spaces for use as “alternative” food markets.

- Increase the Number and Quality of Indoor Food Markets
- Ensure Long-Term Viability of Outdoor Farmers Markets
- Fund Farmers Market Infrastructure

## **5. Procurement of Regionally Grown Food** **21**

Goal: Incorporate preferences for locally-sourced food in New York City’s procurement rules.

- Mandate Procurement of Regional Food
- Level the Procurement Playing Field for Regional Farmers
- Capture Greenhouse Gas (GHG) Emissions in City Food Metrics
- Reduce the Cost of Liability Insurance for Small- and Mid-Sized Farmers

## **6. Education** **24**

Goal: Educate New York City’s children to become a new generation of healthy and environmentally aware eaters.

- Require a Food Curriculum in Public Schools
- Expose City Students to Farms and Gardens
- Institute Meatless Mondays in City Schools

## **7. Food Waste** **26**

Goal: Launch twin composting initiatives: (a) support for large-scale composting through creation of a municipal facility; and (b) support for small-scale composting through education, decentralized composting bins, and more pick-up locations.

- Reduce Food Waste
- Build a Municipal Composting Site
- Promote Small-Scale Composting
- Eliminate Barriers to Food Composting in Community Gardens

## **8. Plastic Water Bottles** **29**

Goal: Increase access to drinking water fountains while reducing the consumption of disposable plastic water bottles in New York City.

- Reduce Bottled Water Consumption
- Increase the Number of Water Fountains
- Encourage the Sale of Water Canteens

## **9. Food Economy** **31**

Goal: Cultivate the food economy by creating a focused economic development strategy.

- Dedicate Staff and Resources at the New York City Economic Development Corporation (NYC EDC) to Develop the Local Food Economy in NYC

- Ensure that Government Support for the Local Food Economy Results Not Just in Additional Jobs, But the Creation of Good Jobs
- Support the Rights of Farm Workers

**10. Government Oversight and Coordination of Food Policy and Programs 34**

Goal: Create a Department of Food and Markets to coordinate and lead systemic reform of the City’s food and agricultural policies and programs.

- Create a Department of Food and Markets
- Require PlaNYC to Address Food

**IV. ADDENDUM 41**

## I. INTRODUCTION

In December 2009, world leaders convened in Copenhagen for the United Nations Climate Change Conference, the final meeting of the international community before the Kyoto Protocol expires in 2011. As the conference drew to a close, the participating nations disappointed millions when they emerged without any consensus or comprehensive plan. Even if the two weeklong meetings in Copenhagen had produced such a plan, advocates and scientists knew that an essential piece of the climate change puzzle had been left out: the potential for sustainable food systems to combat the climate crisis.

Across the Atlantic on December 12, several hundred New Yorkers took their seats in an auditorium at New York University to address that issue and to discuss the role that urban communities must play in the fight to halt and reverse climate change. The New York City Food & Climate Summit, hosted by Borough President Scott Stringer in partnership with Just Food and New York University, was a daylong feast of public policy sessions and skill-building workshops designed to bring this international challenge home.

Speakers such as Small Planet Institute co-founder Anna Lappé, professor Marion Nestle, community gardener and Just Food board member Karen Washington, and Mark Muller from the Institute for Agriculture and Trade Policy framed the conversation, discussing the impact of our current food system on the economy, the prevalence of hunger, and the health of our communities and planet. A live “Twitter room” kept attendees informed about the international discussion, projecting messages from youth in Copenhagen. Indian environmentalist Dr. Vandana Shiva and Nobel Laureate and Green Belt Movement Founder Wangari Maathai addressed the crowd via video on their way to the Copenhagen Summit, urging participants to explore the connections between food and climate and the solutions our city can embrace.

Until recently, it would have been unheard of to host a conversation about farming and agriculture in a city that paved the pastures of Harlem more than a century ago. But with the world’s population expected to reach 9.1 billion by 2050, and the majority of people living in cities for the first time in history,<sup>1</sup> it has become clear that cities will play a pivotal role in both feeding the world and meeting the climate change challenge.

Wangari Maathai’s message from Kenya spoke to a truth that is finally becoming too obvious to ignore: the industrialized food system is forever damaging our planet and the world’s poorest countries are the ones paying the highest price. The production, distribution, and consumption of food is responsible for one third of the man-made greenhouse gas (GHG) emissions which cause global warming. The impact of climate change on the world’s poorest nations must be a primary concern as we search for

solutions. However, one need not look as far as Nairobi to see the impact of this multi-pronged crisis.

Here in New York City, the rate of asthma in some neighborhoods is five times the national average. Unbalanced development has left entire communities in “food deserts” without access to fresh food and saddled with the deadly pairing of obesity and hunger. As the unemployment rate rises, fewer families are able to afford a healthy diet. Last year, 1.6 million New Yorkers received food stamps and 3.3 million had trouble paying for food.<sup>2</sup> The rise of cities, the encroaching impact of climate change on the health of humanity, and the paralysis of the international community has created a situation where urban, industrialized localities must step up and launch the movement to prevent climate change at home.

Given this challenge, what city is better equipped to lead the way than New York?

This is what New Yorkers had in mind when they arrived at the NYC Food & Climate Summit. From the plenary panel to the more than 25 breakout sessions, the relationship between food, climate, health, and the economy dominated discussion, and participants acted as policy entrepreneurs to identify inspired solutions to these problems.

The document that follows was developed based on thousands of ideas generated that day. The ten ideas featured herein are intended to set forth a bold and comprehensive agenda that will spark systemic change in New York’s regional food system, building on efforts initiated in Borough President Stringer’s 2009 report, “Food in the Public Interest: How Food Holds the Key to Hunger, Health, Jobs and the Environment.” Together, the ideas seek to balance health, economic, and environmental needs, and present legislative next steps that will support a sustainable food system.

Despite the vast array of opinions expressed at the Summit, a summary of which can be found in the appendix, participants agreed on one thing: New Yorkers deserve access to safe, affordable and healthy food, produced in an environmentally, socially, and economically sustainable system. To achieve this goal, we must change the assumptions we have about food, agriculture, and nutrition; we must change the infrastructure used to produce, distribute, and consume food; and we must take ownership of the power that the demand-side economy has over the supply of food.



## II. CURRENT POLICY FOUNDATIONS

New York City has, to its credit, recently started examining ways to cut the overall carbon footprint of this village of eight million. Under Mayor Michael Bloomberg's PlaNYC initiative, the city has committed to reducing its GHG emissions by 30 percent by the year 2030. The effort began in April 2007 with a report detailing the amount and type of emissions released in the five boroughs, the launch of a comprehensive reduction program, and the establishment of key benchmarks to assess future reduction efforts. The City's "Inventory of New York City Greenhouse Gas Emissions," released in September 2009, showed a decline in emissions, an accomplishment due, at least in some part, to the City's aggressive improvements to building efficiency, transportation, and land use.<sup>3</sup>

Food has not been included in these reports. As of yet, the City has not stated its commitment to creating a sustainable food system nor has it done the baseline research needed to determine the most important sources of emissions and other environmental impacts of New York City's food system. The "food system" refers to a continuum of activities, including farming, processing, storing, distributing, preparing and discarding food. Emissions are produced at every step along the way: the production of synthetic nitrogen fertilizers and pesticides, the operation of livestock factory farms, inefficient modes of transportation, energy-guzzling refrigeration units, and the landfills where most food scraps are ultimately sent. Though comprehensive research on emissions from New York City's food system has not yet been done, we do know that our food system can be either a driver for a better environment, health, and good jobs or be a source of greater GHG emissions, diet-related illnesses, and an economic drain.

Many of the policies that shape the United States food system, most notably the federal Farm Bill, but also the Renewable Fuel Standards which provide incentives for corn-based ethanol, are the domain of the federal government. Although many changes will have to take place on the national and international stage, change can also be driven by cities and through demand on the ground.

And with escalating diet-related illnesses and food system-related environmental crises, now is not the time for inaction.

London has stepped up to do its part. In addition to issuing a Food Strategy to maximize the benefits of its food sector and to reduce its negative environmental impact, London has also integrated food policy into the city's work on environmental sustainability.<sup>4</sup> In 2008, London officials commissioned a study to quantify the local food sector's GHG emissions in order to better inform the city's Climate Change Mitigation and Energy Strategy. The study, which calculates emissions associated with primary production, manufacturing, distribution, and retail outlets in the local food sector, also quantifies the emissions associated with the food eaten by London residents. The study, which found

that London's food sector produces about 19 million tons of CO<sub>2</sub> annually, identified measures that the city could adopt to reduce these emissions.<sup>5</sup>

A recent initiative in Sweden, a nation which has emerged as a world leader in finding ways to reduce GHG emissions, helps illustrate this point. A 2005 study by Sweden's national environmental agency found that food consumption produced one quarter of the nation's per capita emissions, but that the emission levels from different types of food varied enormously. Thus, the Swedish National Food Administration released a new set of food guidelines that give equal weight to climate and health. Much like calorie labeling in New York City chain restaurants, Sweden embarked on a pilot to label carbon dioxide emissions on certain grocery items and restaurant menus.<sup>6</sup> The sale of climate friendly items has already risen by 20 percent since emissions counts first appeared on menus in Sweden.<sup>7</sup> Many American and European shoppers know that they should check products for nutrients, calories or fat content, but even most eco-conscious shoppers are unaware of the impact that food choices have on the environment.

New York City should embrace the movement to improve our food system with this same sense of logic, innovation and ambition.

The recommendations featured in this report identify specific opportunities for city government to design a food policy that integrates energy and climate objectives with environmental, social, and economic goals. In doing so, we can shape the kind of future that will make New Yorkers not just survive, but thrive, and create a blueprint for progress that can position the City as a leader in both environmental and health policy innovation around the world.

### III. REPORT RECOMMENDATIONS

#### 1. URBAN AGRICULTURE

---

**GOAL:** Establish urban food production as a priority in New York City for personal, community, or commercial use by the year 2030.

##### Recommendations:

1. **Assess Land Availability and Suitability for Urban Agriculture:** The New York City Council should pass legislation mandating that City agencies conduct an annual assessment of City-owned property and nominate suitable sites for urban agriculture. This effort is similar to the “Diggable City” project in Portland, Oregon that integrated urban agriculture into planning and policymaking.<sup>8</sup> Based on a preliminary analysis of data provided by the Department of Housing Preservation and Development in 2008, there are 454 total vacant lots above 110th Street in Manhattan. Of those, over 100 are owned by the City and many have no development plans. In 2008, the Manhattan Borough President’s office also identified significant amounts of open land on New York City Housing Authority properties which should be evaluated as possible garden sites. Where appropriate and following a public review process, City and State parkland should also be considered for urban agriculture.
2. **Create a Citywide Urban Agriculture Program:** The Mayor should establish a citywide Urban Agriculture Program to support the creation of food growing spaces. The program should be similar to Capital Growth, London’s campaign to plant 2,012 growing spaces by the 2012 Olympics by connecting people to land, providing funding, and offering practical guidance on how to grow food.<sup>9</sup> New York City’s Urban Agriculture Program should be modeled on and keep pace with “Million Trees NYC,” an initiative announced by Mayor Bloomberg on Earth Day in 2007 to plant one million trees throughout the city by 2030.<sup>10</sup> It would thus be operated through a public-private partnership and draw a large volunteer base. The Urban Agriculture Program, which would also reduce the City’s GHG emissions, should offer technical assistance to facilitate the creation of new gardens, enhance existing gardens, and attract new gardeners.<sup>11</sup> The first new growing space, a vegetable garden, should be planted in City Hall Park to mark the program’s launch.
3. **Ensure the Permanence of Community Gardens:** The Mayor should preserve community gardens as parks, as proposed in a resolution introduced in the City Council by Council Member Helen Foster,<sup>12</sup> to help establish the permanence of

existing gardens in perpetuity.<sup>1</sup> Cleveland, Boston, and Seattle are among other cities have all established similar initiatives.<sup>13</sup>

- 4. Facilitate the Development of Rooftop Agricultural Greenhouses:** A number of property owners who are interested in building rooftop agricultural greenhouses have faced zoning barriers, including those pertaining to permitted uses, maximum allowable floor area, and light and air regulations. The City should consider addressing these barriers by creating an authorization process for certain use and bulk waivers to facilitate the development of rooftop agricultural greenhouses. Such an authorization process would provide for the case-by-case consideration of requested waivers. In addition to building plans, applications would include performance standards (e.g. amount of food produced, water use, energy conservation, programming, jobs, etc); findings to determine public benefits (e.g. environment, economic, health, education); the identification of significant adverse impacts (e.g. shadows, traffic, character, etc); and protocols for compliance reporting. Priority should be given to projects that create green collar jobs by training and employing New York City residents, especially those who are unemployed or underemployed.

### **Context:**

Urban agriculture refers to the production of food within or on the fringe of cities. People have grown food in cities for centuries and the practice endures across the globe. In Vancouver, for example, 44 percent of residents produce their own food.<sup>14</sup>

The defining characteristic of urban agriculture may not be its location as much as its role in the economic, environmental, and social fabric of an urban community.<sup>15</sup> Urban agriculture can help meet nutritional needs and provide jobs for those who grow, harvest, and sell food.<sup>16</sup> It creates opportunities for the young and old, as well as people from all walks of life to strengthen communities and reshape their relationship with food in the process. Urban agriculture can filter and reduce the volume of rainwater run-off, which decreases combined sewage overflow in our city waterways, can reduce the heat-island effect, absorb carbon through photosynthesis, and sequester CO<sub>2</sub> in the soil. It can also help businesses offset food overhead costs. For example, the Fairmount Waterfront Hotel in Vancouver, Canada grows herbs, vegetables, fruits and edible flowers for its restaurant, saving between \$25,000 and \$30,000 annually and more than offsetting the \$16,000 annual maintenance cost.<sup>17</sup>

---

<sup>1</sup> Note: State Senator John L. Sampson and Assemblyman James F. Brennan introduced Bill A6800/S104, which “dedicates community gardens in the state of New York as parkland and requires the appropriate community board in cities with a population of one million or more persons to approve plot's withdrawal from the community garden program.” This Bill was introduced in 2009 and referred to the Tourism, Arts and Sports Development Committee this year.

Because of these benefits, a number of large cities have developed concrete policies to promote urban agriculture, including London, Brisbane, and San Francisco.<sup>18</sup> Although there has been a resurgence of interest in urban agriculture in New York City,<sup>19</sup> a long list of impediments prevent it from growing beyond a small number of community gardens.

In addition to sun, seeds, soil, and water, urban agriculture requires land. However, the scarcity of land in the five boroughs is a major obstacle to gardening and farming. In 1998, the Giuliani administration auctioned off City land that had been used for community gardens. City policy still reflects the longstanding view that urban agriculture is a transitional use of land, available until the land is ready for urban development. The city's Community Gardens Coalition is currently campaigning for future access to property once the Memorandum of Understanding, signed by the State Attorney General and the Mayor in 2002 to protect many existing gardens, expires in September 2010.<sup>20</sup> Although the Bloomberg administration is generally supportive of community gardens, food infrastructure is not officially part of City land use and planning decisions, nor is it considered when communities, elected officials, and developers think about how land could and should be used.

The scarcity of traditional spaces for gardens and farms has prompted the exploration of underutilized areas, such as rooftops, basements, or warehouses, as well as innovative technologies to serve the unique needs of an urban environment. For example, a company called Gotham Greens is constructing the city's first hydroponic rooftop farm on a church in Queens. The 12,000 square foot farm will produce 20 tons of fruits and vegetables annually, be powered by 2,000 square feet of solar panels, and collect rainwater through a large system.<sup>21</sup> At the Food and Climate Summit, New School professor Nevin Cohen estimated that New York City has 52,000 acres of backyard space that collectively could provide vegetables for 700,000 people. Opportunities to use traditionally under-utilized space for growing food, training workers, and implementing new technology may have substantial health, economic and environmental benefits.

## 2. REGIONAL FOOD PRODUCTION

---

**GOAL:** Promote and support regional agriculture by connecting upstate and Long Island farms with downstate consumers, and by mapping the food grown and sourced from the region within approximately 200 miles of New York City.

### Recommendations:

1. **Determine the Capacity of the Regional Foodshed:** The Borough President’s Office will work to acquire funding through federal appropriations, philanthropic support, or private donations for an assessment of the foodshed, to be conducted by the Urban Design Lab at Columbia University in partnership with the Stone Barns Center for Food and Agriculture. The assessment will build on existing data to evaluate the potential of food production in the New York City foodshed, including land use, soil type, transportation, infrastructure, estimates of GHG production and the opportunities for reduction, as well as the consumption needs of New York City residents.<sup>22</sup>
2. **Develop a State Strategy for Farmland and Food Production:** The State of New York should analyze its farmland resources and food consumption needs and develop a long-term strategy for sustaining farming and food production. Other states, including California and Maryland, have developed such strategies based on an analysis of land use and economic trends, soil and natural resources, food consumption needs and other factors to develop a state-level blueprint for protecting farmland and strengthening food production.<sup>23</sup>
3. **Accelerate the Protection of New York’s Farmland:** New York State should appropriate at least \$50 million annually for the State’s Farmland Protection Program (FPP). This “Fifty for Farmland” should enable the state to protect at least as much farmland as is being lost to development annually.<sup>24</sup> The New York State Legislature should also pass legislation introduced by State Senator David Valesky (S. 5414) and Assemblyman William Magee (A. 6686), which would increase the maximum State cost share at no added cost to the State, as well as legislation introduced by State Senator Darrel Aubertine (S. 4476) and Assemblyman William Magee (A6687) to allow nonprofit conservation groups to apply for farmland protection grants.

### Context:

A basic premise of this report is that New York City must invest in a stronger regional, sustainable and resilient food system. New York City will always need access to national and international markets to provide the volume and variety of food necessary to feed its

residents, but bridging New York State’s rural-urban divide through government action on food policy will go a long way towards safeguarding the environmental, health, social, and economic interests of New Yorkers.

With 36,600 farms covering seven million acres, no one can dispute that New York is an agricultural state. Yet, despite their proximity to the largest city in the U.S., many New York State farms struggle to find a market for their goods.<sup>25</sup> The disconnect between cities and their surrounding farmland is not unique to New York.<sup>2</sup> The large volume of food that can be inexpensively produced and transported from overseas has made it difficult for small and mid-sized regional farms to survive.<sup>26</sup> As a result, local farmers struggle to be profitable, food safety has been threatened, and more of our food remains in storage and in transit for extended periods of time, increasing its packaging and preservatives and reducing its nutrient value.

The opportunity here is that regional farms will prosper if there is demand for their products – and our city of eight million is undoubtedly a sizable market. A recent study showed that the unmet demand among New York City food retailers, restaurants, and distributors for locally grown produce is “\$649 million; for local meat and poultry \$48 million; for local eggs and dairy \$44 million” and “for local plants and flowers . . . \$126 million.”<sup>27</sup>

The recommendations offered in this section propose reforms that would strengthen the regional foodshed. The term “foodshed,” which is analogous to a “watershed,” refers to a geographic area, say a 200-mile radius surrounding the city for instance, where food can be sourced.<sup>28</sup> United States Department of Agriculture officials, particularly Deputy Secretary Kathleen Merrigan, have demonstrated an interest in strengthening regional foodsheds. In an August 2009 memo, Merrigan wrote: “I suspect that many USDA programs are under-utilized by those seeking to build local and regional food systems. I would like to play match-maker during this Administration.”<sup>29</sup>

New York’s foodshed will never be the sole source of food for local residents, but state farmland can meet significantly more of the city’s dietary needs than it does today, by some estimates as much as 30 percent of residents’ dietary needs.<sup>30</sup> By becoming less dependent on imported food, the city will gain greater control over the quality and security of its food supply, be less vulnerable to contamination or tampering, and be better prepared for emergencies.<sup>31</sup> Increasing the amount of organic or sustainably raised foods, which focus on building healthy soils and natural methods of pest and weed

---

<sup>2</sup> The historically low cost of petroleum, coupled with standardized production technology and access to international markets, helped lead to a globalized food production, processing, and distribution system. Many companies moved to countries with a year-round growing season, limited government intervention, and lax labor and environmental laws.

control, can reduce on-site emissions.<sup>32</sup> In addition, these farming practices have other ecological benefits, reducing “pollution from air, soil, and water.”<sup>33</sup>

Importantly, spending on products sourced and sold locally stimulates the local economy. Laborers, drivers, manufacturing workers, and entrepreneurs are needed to keep this sector running, and many of these jobs are stable and do not require advanced degrees. A study in Detroit found that a shift of twenty percent in spending on regional food would increase the city’s annual output by nearly 500 million; more than 4,700 jobs would be created; and nearly \$20 million more in business taxes would be generated annually.<sup>34</sup> Plus, the average New York State farm operator is 56 years old, suggesting that there is an opportunity for a new generation of farmers.<sup>35</sup>

During the Summit plenary session, Nobel Prize winner Wangari Maathai pointed out that the farm unit will be the deciding factor of a regional food system and that land and water are the fundamental building block for any farm. The Northeast has a sufficient supply of water – sustainable farms help protect watersheds, while chemical farming and factory farms can negatively impact water – but land is an extraordinarily limiting factor.

The American Farmland Trust estimates that a farm is lost to development every three days, and New York State has the lowest percentage of protected farmland in a 10-state region of the Northeast.<sup>36</sup> More than 75 percent of New York’s fruits, vegetables, and dairy products are grown in metropolitan areas experiencing development pressure. The loss of farmland at this rate increases the imperative for the City to look inward to establish its agricultural priorities and prowess. Without action, New York may lose its ability to grow the nutritious foods needed by the state’s residents.

A key obstacle to developing New York City’s foodshed is the lack of information. Currently, there is insufficient knowledge about the existing regional food system, from production and distribution to processing and storage, as well as the capacity, demands, and constraints. Without an assessment like the one recommended, it is difficult to make good policy decisions to correct the inefficiencies in the system, let alone leverage potential opportunities.



### 3. FOOD PROCESSING AND DISTRIBUTION

---

**GOAL:** Increase the sale and consumption of regionally grown foods by expanding regional distribution and local processing capacity.

#### Recommendations:

1. **Modernize and Expand Hunts Point Produce Market:** The Mayor and the NYC EDC should work with the State Department of Agriculture and Markets to ensure that the necessary resources are allocated to the redevelopment of the Hunts Point Produce Market. The market must be redeveloped to meet the city's and region's environmental and economic needs, including a Wholesale Farmers Market and a rail link connecting upstate to downstate.<sup>37</sup> Additionally, the NYC EDC should explore the processing and distribution needs required for schools and other large institutions to source regional food and work with the Hunts Point Association to attract anchor tenants in the processing industry for the newly developed Hunts Point Produce Market.
2. **Build Small-Scale Wholesale Farmers Markets:** It is difficult for many grocers and restaurateurs interested in sourcing locally to make the trip to Hunts Point. Therefore, to accommodate the growing wholesale demand for local produce, the City should survey local restaurants, grocers, and institutions to gauge their demand and, if appropriate, identify City-owned property in boroughs other than the Bronx (where Hunts Point is located) to establish small-scale wholesale farmers markets.
3. **Promote Public Investment in Processing and Distribution Facilities:** New York State authorized \$40 million in its 2008-09 State Budget for an Agricultural Development Fund. Ten million dollars of this funding has been targeted towards a Healthy Food / Healthy Communities program to spur grocery store development in areas of New York City without access to food markets. The State of New York should make available the remaining \$30 million for investment in food processing, distribution infrastructure, and job creation.<sup>38</sup>

#### Context:

An efficient distribution and processing system helps prepare and transport raw goods from the farm directly to consumers and into value-added products you find in a market. Despite the close proximity of rural farmland, infrastructure barriers prevent the local supply from meeting the demand for local food in New York City. New York City should tap this \$866 million market for locally grown food by improving the distribution

networks in and around the five boroughs and by identifying opportunities for investment in local food processing.<sup>39</sup>

### Hunts Point Terminal Market

In 2004, Mayor Bloomberg designated Hunts Point Terminal Market as the City's principal food distributing zone.<sup>40</sup> Hunts Point Market, located on 125 acres of City-owned land in the South Bronx, is the largest wholesale produce market in the world. Each year, more than 50 merchants housed in the Market sell over 3.3 billion pounds of produce for revenues exceeding \$2 billion annually.<sup>41</sup> Despite these impressive figures, the facility is deteriorating. It does not meet modern storage standards or environmental standards, and does not serve regional farmers well.

As such, the Hunts Point Terminal Produce Cooperative is in talks with the NYC EDC to renovate the Market. The price tag on the proposed renovations is \$450 million.<sup>42</sup> Though costly, the improvements are worth the investment. If the Market were to relocate to New Jersey after its 30 year lease expires in 2011, New York would lose an estimated 8,500 high paying jobs in addition to millions in annual tax revenue with an unknown cost to the network of local food business.<sup>43</sup>

### Wholesale Farmers Market

Not only is the Market outdated, it does not include dedicated space for a wholesale farmers market. As a result, many items grown locally, such as dairy products, apples, strawberries, grapes, cabbage, potatoes, tart cherries, and snap peas, are excluded from the city's wholesale distribution networks in favor of items grown out of state.

Since the last site for a wholesale farmers market, the Bronx Terminal Market, was demolished in 2006, efforts have been made to maintain a space for this important commercial activity.

In 2007, approximately 20 farmers who had been displaced from the Bronx Terminal Market negotiated an agreement to create a small-scale wholesale farmers market in a lot adjacent to the New Fulton Fish Market in the Bronx. In September 2009, the New York State Department of Agriculture and Markets awarded \$296,000 to the Council on the Environment of New York City (CENYC) to manage, promote and expand this wholesale farmers market.<sup>44</sup>

Though this represents progress, it is only a temporary solution. The space in the lot next to the New Fulton Fish Market allows for just a limited number of farmers. Further, the conditions are substandard as, unlike the rest of the Hunts Point Market, the Wholesale Farmers Market operates in an outdoor open parking lot without storage, refrigeration, or processing facilities.

## Processing

Preliminary research suggests that there is a need to augment in-state processing capabilities, as well as commodity aggregation to help small farms meet large orders.

Officials and advocates working to incorporate local produce into institutional purchase orders frequently lament the lack of processing infrastructure necessary to meet institutional procurement specifications, such as washing, cutting, and bagging. A recent survey of distributors, wholesalers, and brokers in New York State revealed that less than 17 percent of respondent groups are handling 50 percent or more fresh-cut produce.<sup>45</sup> This data combined with established institutional procurement specifications suggests that there may be an opportunity to increase the amount of produce washed and cut in-state, shift the product mix carried by wholesale buyers and ultimately increase purchasing of local produce. Another study noted that in-state distributors who sourced local produce were generally extremely satisfied with its freshness and taste, but felt that packaging and handling could be improved. These findings suggest that investment in state-of-the-art packing and processing sites might increase the purchase of locally grown produce and help local farmers to better meet market demand.

## 4. NEW MARKETS

---

**GOAL:** Increase the number and type of retail food outlets that deviate from the traditional grocery store model by identifying spaces for use as “alternative” food markets.

### Recommendations:

1. **Increase the Number and Quality of Indoor Food Markets:** The New York City Council should enact legislation requiring City agencies to evaluate vacant and underused space, buildings, and lots for the purpose of identifying appropriate locations to house farmers markets or new, standalone indoor markets. Such sites identified by the City should be subject to a public planning process for determining market locations and whether a market could be combined with additional uses to meet neighborhood needs.
2. **Ensure Long-Term Viability of Outdoor Farmers Markets:** The New York City Department of Parks and Recreation should offer long-term leases and appropriate infrastructure to host farmers markets on public spaces, after community consultation and where appropriate. The main target for this public support should be farmers markets that operate year-round. The initiative would involve constructing permanent infrastructure, such as displays, fences, and electrical outlets, which can be left in place and reduce the set-up and break-down time for farmers. This investment would be a tangible demonstration of the City’s support for the long-term viability and success of these markets.<sup>46</sup>
3. **Fund Farmers Market Infrastructure:** The NYC EDC and the Department of Parks and Recreation should explore and develop new funding streams and resources for upgrading the infrastructure needed to support farmers markets. One promising possibility is the United States Department of Agriculture’s Farmers Market Promotional Program, which can enhance the marketing of farmers markets and install Electronic Benefits Transfer (EBT) equipment.<sup>47</sup> While this funding cannot be used for buildings rehabilitation or construction, it can be used to purchase cold storage facilities and other infrastructure.<sup>48</sup> In addition, the City should explore cross-financing mechanisms where revenue generated through other uses can be used to create and sustain new market space.

### Context:

A recent study by the New York City Department of City Planning (NYC DCP) demonstrated that many New York City neighborhoods lack access to healthy fresh food.<sup>49</sup> There is increasing evidence that neighborhoods with sufficient access to healthy

food retailers have a lower prevalence of diet-related illnesses, including Type 2 diabetes and obesity, helping to combat a problem which has reached epidemic proportions across the country and in New York City.<sup>50</sup>

The City has instituted many programs in order to fight the fresh food inequity, including the Healthy Bodega Initiative, the Food Retail Expansion to Support Health (FRESH) program, and the Green Cart Program (for push carts). While these programs help increase access to healthy food, each has limitations. The bodega and push cart programs offer only a limited supply and variety of food due to space constraints. The FRESH program, while doing good work to encourage new full-line, fresh food grocery stores, is only expected to create 15 new grocery stores across the city because of the physical requirements and large real estate demands of grocery stores.<sup>51</sup> None of the programs promote food produced in-state. In addition to these programs, the City has been working steadily to encourage farmers markets,<sup>52</sup> which allow farmers to directly market their goods to city consumers. This support has involved dedicated public spaces, EBT and Farmers Market Nutrition programs, and encouraging new markets.

Today there are a total of 109 farmers markets in New York City licensed by the State.<sup>53</sup> Open-air farmers markets represent one of the best existing vehicles for regional farmers to sell food directly to city consumers. However, they also have limitations. By regulation of the State, farmers markets are not retail establishments.<sup>54</sup> Consumers cannot purchase perishable foods packaged or cut on site, such as meat, dairy products, or ready-to-eat food, unless the facility has running hot and cold water, sanitizing and hand-washing facilities, and toilet facilities.<sup>55</sup> Open-air farmers markets often lack this infrastructure. Further, 84 percent of these markets close during the winter months, preventing them from being a year-round source of fresh food.<sup>56</sup> Finally, open-air farmers markets often lack on-site storage facilities for products. The farmers markets, therefore, require goods to be transported from farms or off-site storage facilities to the market on each selling day. If the City wishes to actively utilize farmers markets to address fresh food inequities, these limitations must be addressed.

Just as important, however, New York City needs to invest its financial resources and planning expertise in developing new sites for *enclosed* markets. This creates an opportunity to reduce hydrofluorocarbons (HFCs), GHGs found in many supermarket refrigeration systems.<sup>57</sup> Many vacant buildings could serve as standalone indoor markets or as indoor facilities working in concert with nearby open-air farmers markets. Even more buildings or structures could be utilized to enhance existing open-air farmers markets by providing storage or cold storage facilities, which would enhance the amount and types of fresh food able to be provided. Several of the city's vacant buildings and existing markets, such as La Marquette in East Harlem, would require minimal investment to be rehabilitated but could have a significant positive benefit. In addition to providing new sources of fresh food, revitalizing vacant properties for markets and

support facilities will allow the City to receive revenue for properties that are currently non-contributing. Creating new markets in vacant buildings would also benefit the neighborhood by providing jobs and tax revenue and removing blight.

The City could also consider locating markets in newly constructed mixed use buildings. Many markets could be designed to require minimal space as could fresh storage.

## 5. PROCUREMENT OF REGIONALLY GROWN FOOD

---

**GOAL:** Incorporate preferences for locally-sourced food in New York City’s procurement rules.

### Recommendations:

1. **Mandate Procurement of Regional Food:** The New York City Council should pass a local law requiring preferences and targets for City agencies to procure specified percentages of food from regional producers. New York State’s Council on Food Policy has suggested a goal that by 2020, 20 percent of all food purchased by state agencies and authorities should be produced locally.<sup>58</sup> The City Council should also consider establishing a preference clause for food grown sustainably and transported in an energy efficient manner. There are many precedents for City Council adoption of laws that align the City’s buying power with New Yorkers’ policy priorities. In 2005, the City Council enacted Local Law 86, setting green LEED building standards for all contractors working on City capital projects; and Local Law 129, setting targets for the amount of goods and services procured by the City from Minority and Women Owned Business / Enterprises (MWB/E) vendors.
  
2. **Level the Procurement Playing Field for Regional Farmers:** The New York State Council on Food Policy’s report to Governor Paterson, released in December 2009, recommends that bidders that source locally produced agricultural products should be given preference in the awarding of state contracts.<sup>59</sup> The recommendation went further, stating that the preference should extend to bids that are up to 10 percent greater in price than the lowest bid.<sup>60</sup> The New York City Council should adopt this recommendation for City procurement. The Council has already shown support for this model. Resolution No. 1977, introduced by Council Member Leroy Comrie and adopted in 2009, calls on the State Legislature to enact legislation introduced by State Senator Martin Dilan (S. 3514) and Assemblyman Darryl Towns (A. 7369), which would allow municipalities to award competitively bid contracts to small businesses, if they are within 10 percent of the lowest bid. Given that 91 percent of farms in New York State are family owned operations, local sourcing may also support small and medium sized farms.<sup>61</sup>
  
4. **Capture GHG Emissions in City Food Metrics:** The New York City Council should pass legislation that requires City agencies to establish quantitative metrics associated with food procurement, which the Mayor’s Office of Long Term Planning and Sustainability is required to analyze and publicly report on annually. This “report card” should evaluate the amount of regionally sourced food that is purchased by each agency as well as the percentage of such foods that were raised in sustainable

ways, including the Integrated Pest Management (IMP) practices, organic farming methods, or farms' enrollment in the Agricultural Environment Management (AEM) program administrated by the New York State Department of Agriculture and Markets. The report should also use recent research on GHG emissions related to different foods to estimate the climate costs of City-food procurement.

- 3. Reduce the Cost of Liability Insurance for Small- and Mid-Sized Farmers:** The Mayor should act to reduce the high cost of liability insurance burdening small farmers who sell to the City. A survey conducted by the Community Food Security Coalition of the food programs managed by over one hundred institutions, including major universities, found that “resolving insurance needs” is one of the “most significant barriers to starting or sustaining” local procurement contracts.<sup>62</sup> Lowering the cost of liability insurance would eliminate the primary obstacle preventing many small, local farmers from supplying food to schools. This could include contract provisions that allow for Good Agricultural Practices (GAP) certification in place of prohibitively high insurance thresholds. In 2008, the New York State Department of Agriculture and Markets in partnership with United States Department of Agriculture offered reimbursement of up to \$750 for GAP certification for specialty crop growers.

#### **Context:**

Hundreds of thousands of New Yorkers are fed daily by publicly-funded schools, hospitals, senior centers, homeless shelters, and jails. New York City does not, however, use its expansive buying power to support local farmers or producers, passing up a significant opportunity to drive the regional economy and attract fresh healthy food. This can be changed by amending City procurement requirements to promote local sourcing. “Local” is defined as food products grown, raised or processed by state residents or businesses located within the borders of New York State.

City procurement rules set the parameters that the City must follow when identifying vendors and establishing contracts for goods or services. Under the current system, these rules do not include geographic preferences or quotas for local sourcing. Therefore, City agencies have no formal or legal incentive – or even encouragement – to choose a locally grown product over out-of-state or out-of-country products, even if equally priced. Similarly, local farmers, processors, and entrepreneurs have no incentive to adjust crop variety and volume to meet institutional demand because there is no guarantee that the demand for these items will be sustained. Without a contractual guarantee for demand over time, the investment risk is too great for farmers, processors, and entrepreneurs and so few investments in infrastructure are made.

In Seattle, when consumers shifted 20 percent of their food spending from businesses outside the community to local businesses, the result was an annual increase of nearly a



half billion dollars in revenue in King County, and twice that sum in the Central Puget Sound region.<sup>63</sup>

A movement to local sourcing for school lunches is occurring at the federal, state, and local levels. Two years ago, the National School Lunch Act was amended to encourage public schools to purchase more locally grown and raised agricultural products. The following examples illustrate what can be achieved by procuring school food from local sources:

- Rhode Island: The Rhode Island Farm to School Project, coordinated by Kids First, encourages all Rhode Island school districts to buy locally grown foods for school meals.<sup>64</sup> Since the program's inception in 2005, the number of farms in Rhode Island has increased by 42 percent. Three major national distributors supplying Rhode Island schools – Aramark, Sodexo, and Chartwell – are purchasing locally grown food.<sup>65</sup> Kids First was also able to work with one distributor to address insurance requirements that were prohibitively expensive for certain small scale farmers. Farmers were allowed to use Good Agricultural Practices (GAP) Certification to reduce liability insurance premiums, shifting the focus from quality insurance to quality assurance.
- St. Paul, Minnesota: In 2008, Saint Paul public schools went from sourcing only apples locally to sourcing 56 percent of its menu from within a 200-mile radius. The shift came after St. Paul participated in an 18-month pilot run by School Food FOCUS Learning Lab, a national initiative working with school districts to source healthier foods from local producers. The St. Paul school district worked with farmers and distributors within a 200-mile radius to better understand their business constraints; revamp school menus to incorporate locally grown food; quantify the amount of produce needed to execute the menus; and issue separate Requests for Proposals to supply the local produce component of their menus.<sup>66</sup>

In order for New York City to follow this lead, City agencies that procure food need to: revamp menus with an eye toward featuring locally grown ingredients (fresh and/or minimally processed and frozen); quantify the resulting new demand for local foods; and then begin discussions with regional farmers and distributors about meeting demand. The payoff would be economic benefits to upstate farmers and health benefits to millions of adults and children who rely on City agencies to feed them.

## 6. EDUCATION

---

**GOAL:** Educate New York City’s children to become a new generation of healthy and environmentally aware eaters.

### Recommendations:

- 1. Require a Food Curriculum in Public Schools:** One in five kindergarten students in New York City are obese, constituting a public health problem of epidemic proportions.<sup>67</sup> The New York State Legislature should enact legislation making mandatory a food, agriculture, and nutrition curriculum for K-12 students. HIV/AIDS education, presently mandated as part of the New York State Fitness and Health curriculum, could serve as a useful precedent for developing a statewide food curriculum.<sup>68</sup> In addition, where possible, educators should look for opportunities to offer students home economics, which involves developing the skills to purchase and prepare raw foods.
- 2. Expose City Students to Farms and Gardens:** The State Legislature should also mandate that every school has access to agriculture, be it a community garden, urban farm, or relationship with a rural farm. The former City Board of Education supported an Office of Horticulture to coordinate relationships between community gardens and schools. Today, the “Wellness Policy” established by the New York City Department of Education (NYC DOE) gives short shrift to garden-based learning and related educational opportunities.<sup>69</sup> This sharply differs from California, where the state’s Wellness Policy recommends experiential learning opportunities, including school gardens, to promote healthy nutrition. In 1995, the California Department of Education launched its “Garden in Every School” initiative, followed by several state programs promoting instructional school gardens.<sup>70</sup>
- 3. Institute Meatless Mondays in City Schools:** The NYC DOE SchoolFood office should institute “Meatless Mondays,” a public health awareness initiative launched by the John Hopkins Bloomberg School of Public Health to promote healthy, environmentally friendly, plant-based choices. The Baltimore School System has instituted such a program; today, in that school system, 80,000 students at 200 public schools are learning about healthy, environmentally friendly food choices, and the impact that the industrial livestock industry can have on climate change, water quality, biodiversity, and public health.<sup>71</sup> NYC SchoolFood has the authority to set the menu choices for public schools; and this initiative falls within its budgetary, logistical and administrative jurisdiction.<sup>72</sup> The implementation of Meatless Mondays would help students see that they can enjoy filling plant-based meals, but it is important to note that a healthy diet will

integrate more fresh plant-based foods throughout the week and not just cut back on red meat.

**Context:**

One in five kindergarteners is obese,<sup>73</sup> putting these children at greater risk of diabetes, heart disease, asthma, and depression, among other health problems.<sup>74</sup> High-calorie diets loaded with saturated fats and sugars, and a lack of fresh produce and other nutrient dense and low calorie foods are a significant cause of this diet-related disease epidemic, particularly in low-income neighborhoods facing food access obstacles.

Nutrition education and an understanding of the environmental impact of our food system on young children can establish lifelong healthy eating for our city's youth. It can provide awareness of how their food choices connect to climate change, over time establishing greater demand for environmentally responsible food choices.<sup>75</sup> Stronger curriculum integration, as well as hands-on education about horticulture, nutrition, home economics, and food systems are ways to help combat these problems.

School garden programs aim to teach children about healthy food and how it is grown, guide their dietary choices, and foster environmental stewardship. A city-wide school garden effort would have several educational, health and environmental benefits, many of which pertain to these goals. To promote health, inquiry-based food education in gardens can foster better eating habits and willingness to try new foods.<sup>76</sup> Used properly as an educational tool, garden-based learning can improve students' motivation and their understanding of science concepts and inquiry skills,<sup>77</sup> improve academic performance<sup>78,79,80</sup> and educate the surrounding community.<sup>81</sup>

Some resources are already available through grants<sup>82</sup> or technical support from organizations like Just Food, SlowFood, and CENYC, but they are scattered and not easily accessible. Some government support is available as well, most notably from GreenThumb and the Garden to Café program, but currently there are only around 100 school garden programs in New York City.<sup>83</sup> A coordinated citywide school garden program could leverage public-private partnerships to fund and operate these gardens at a cost of \$3,000 to \$5,000 each or, more simply, to facilitate access to existing nearby community gardens, particularly those on government property.

## 7. FOOD WASTE

---

**GOAL:** Launch twin composting initiatives: (a) support for large-scale composting through creation of a municipal facility; and (b) support for small-scale composting through education, decentralized composting bins, and more pick-up locations.

### **Recommendations:**

1. **Reduce Food Waste:** The New York City Sanitation Department's NYC Compost Project should collaborate with a university or research institute to determine why food waste is such a disproportionately large part of New York's waste stream, relative to the rest of the country. Targeted efforts to divert food from the waste stream are important, but should proceed in conjunction with efforts to reduce the amount of food waste generated by residents. A waste characterization study may show that better procurement practices by institutions (schools, colleges, hospitals) will substantially reduce their food waste, for example.
2. **Build a Municipal Composting Site:** The NYC EDC should accelerate its effort to identify a site and technology for municipal composting. This goal was identified as part of the Comprehensive Solid Waste Management Plan in 2006 and is set to be accomplished during the next 20 years.
3. **Promote Small-Scale Composting:** The Department of Sanitation, the Department of Parks and Recreation, and CENYC, which runs the Office of Recycling Education and Outreach and Greenmarket, should explore opportunities to pursue individual and small-scale composting initiatives through additional farmers market pick-up locations, for instance. These efforts may require public-private partnerships which provide incentives for farmers to haul organic waste or small-scale composting in public parks, in order to be financially viable. Public policies that can facilitate these efforts should be explored.
4. **Eliminate Barriers to Food Composting in Community Gardens:** The New York State Legislature should eliminate or modify the New York State Department of Environmental Conservation (DEC) regulation on composting facilities (Chapter IV-Quality Services; Part 360.5) that allows for the registration of a composting site only if the facility is 500 feet from the nearest surface water body, potable well, and residence or place of business in densely populated or "otherwise sensitive" areas.<sup>84</sup> If a facility violates this rule, it requires a special permit pursuant to the Solid Waste Management Facilities Part 360. To prevent this rule from unreasonably deterring community gardens that wish to compost food waste, DEC should revise it by ensuring that it is not overly burdensome to

get an exception in New York City, or by requiring registration only for facilities that process more than a minimum threshold, such as 500 cubic yards each year.

**Context:**

Landfills are a large source of methane. Methane is a potent GHG emission, with 23 times the global warming potential of carbon dioxide. Methane is emitted from landfills when biodegradable materials such as paper, yard trimmings, or food are placed in an anaerobic or oxygen-starved environment like a landfill. The amount of methane produced by these materials can be reduced either through technological improvements to the landfill or by preventing waste from ever reaching it. The City has intervened by requiring that paper be recycled. It collects yard waste through a City composting program. However, this program was first slated for elimination during the 2008 budget cuts, which troubled many community gardeners who received the compost produced by the program. Food waste is the exception – there are no efforts on the part of the City to divert food from landfills.

This might be less problematic if food waste was a small part of the city’s waste stream. In 2006, a study by the Department of Sanitation found that organic waste makes up 41.1 percent of the city’s residential waste stream. Of that, 17.1 percent is food, four times the national average.<sup>85</sup>

The reason New Yorkers generate more food waste than the rest of the country remains unclear. We can be certain that most New Yorkers do not examine their food waste and adjust their actions and purchases to reduce their footprint. Taking these measures is an effective and important first step. When New York University first examined its waste stream, it found that 60 percent could be composted, 30 percent could be recycled, and only 10 percent needed to go to landfill.

The list of challenges to diverting a substantial amount of food waste from landfills is long.

The City does not have a municipal facility to manage organic waste; nor are there mandates for businesses or residences to compost. In contrast, San Francisco became the first city in the United States to mandate that all residents and businesses separate their food waste from trash for recycling in 2009. New Yorkers, however, are left to create their own composting bin, pay for the export of waste or, if lucky, rely on socially minded nonprofit organizations like the Lower East Side Ecology Center and Added Value.

Private businesses are required to manage their own waste. However, in spite of the costs and other obstacles, many private businesses do choose to compost. Private haulers report that businesses face three main challenges to compost: training, space, and cost.

The Mayor's Solid Waste Management Plan requires that the Department of Sanitation and the NYC EDC site a compost facility and identify an appropriate technology to pilot at the site during the next twenty years. To avoid burdening one borough with the entire city's waste, ideally, every borough should have a digester to manage its own waste. However, there are limited numbers of industrialized areas in the five boroughs that can host an 8-acre anaerobic digester or even in-vessel aerobic systems, which require about 30,000 square feet.

## 8. PLASTIC WATER BOTTLES

---

**GOAL:** Increase access to drinking water fountains while reducing the consumption of disposable plastic water bottles in New York City.

### Recommendations:

1. **Reduce Bottled Water Consumption:** The Mayor should ban the sale of bottled water in all City facilities and on municipal property. Other local and state governments have taken such action: San Francisco and Los Angeles have already banned it;<sup>86</sup> Maine, Hawaii, California and Oregon have deposit laws, providing a refund to ensure that bottles are returned for recycling, which include bottled water; the U.S. Conference of Mayors has adopted a resolution to this effect. Governor Paterson has also restricted the use of bottled water in state facilities.<sup>87</sup>
2. **Increase the Number of Water Fountains:** The New York City Council should pass legislation expanding access to free tap water in public spaces by building new water fountains. This should be made a mandatory element of new construction in parks, public plazas, or outside of commercial developments of a certain size.
3. **Encourage the Sale of Water Canteens:** Universities, hospitals, and other large institutions should be encouraged to substitute the sale of water canteens for the sale of bottled water. Ideally, a recommended container should be durable, indefinitely reusable and made of a non-toxic material, such as stainless steel.

### Context:

The sale of bottled water and “enhanced” water (water containing vitamins, minerals, electrolytes, herbs, and additives) is the fastest growing segment of the commercial drink market in the United States. Half of the Americans who drank bottled water in 2008 said they did so because it is healthier and safer than tap water. Yet the reality is different.

The United States Environmental Protection Agency’s testing and requirements for tap water may be more rigorous than the Federal Department of Agriculture’s standards for bottled water.<sup>88</sup> Furthermore, bottled water has terrible consequences for the environment. Almost 2.5 billion bottles of water are sold annually in New York State, and only 10 percent of plastic water bottles are recycled. If all of New York’s water bottles were recycled, 67,000 metric tons of GHGs would be saved.<sup>89</sup> Manufacturing the 2 million tons of plastic bottles that were thrown into landfills in 2005 required 18 million barrels of crude oil and released more than 80,000 metric tons of GHGs into the atmosphere.

To reduce the negative environmental impact of bottled water, San Francisco and Seattle have banned city agencies from purchasing it; Chicago taxes it; and Salt Lake City actively encourages municipal workers not to buy bottled water. In June 2008, the U.S. Conference of Mayors passed a resolution to “phase out, where feasible, government use of bottled water and promote the importance of municipal water.”<sup>90</sup> In addition to identifying the environmental harm caused by bottled water, the resolution notes that local governments invest about \$82 billion in water and sewer services annually, and up to 40 percent of bottled water comes from municipal water systems. At the same time, the bottled water industry generated \$15 billion in profit in 2006.

Studies have shown that sugar-sweetened fruit and soft drinks are major contributors to the rise in weight gain in children.<sup>91</sup> A recent study of about 3,000 second- and third-grade students in Germany found that adding school water fountains, distributing water in classrooms, and teaching children about the health benefits of water can reduce a child’s risk of becoming overweight.<sup>92</sup> The students were the same weight at the beginning of the study, yet those in schools with increased access to drinking water were 30 percent less likely to be overweight by the end of the school year.



## 9. FOOD ECONOMY

---

**GOAL:** Actively develop the local economy’s food sector while elevating labor standards, environmental protection, and public health.

### Recommendations:

1. **Cultivate the Food Economy by Creating a Focused Economic Development Strategy:** New York City should advance the food economy through the following measures:<sup>93</sup>
  - **Dedicate Staff and Resources to Develop the Local Food Economy in NYC:** The NYC EDC would provide technical assistance around access to capital and real estate and would foster relationships between different segments of the food supply chain.
  - **Protect Manufacturing Zones:** Zoning changes and illegal conversions have reduced the amount of space available for manufacturing. The Administration should strengthen its Industrial Business Zone (IBZ) program for the food sector by working to attract new food processing businesses, ensuring the infrastructure is available to support these businesses, and to mitigate competing interests.
  - **Convene Restaurant Industry Task Force:** The New York City Department of Small Business Services and NYC EDC should collaborate in bringing together leaders in the restaurant industry to brainstorm strategies for making restaurant sector jobs more competitive and sustainable.
2. **Build Kitchen Incubators in Every Borough to Spur Business Development and Job Creation:** Kitchen incubators provide shared commercial kitchen space at below-market costs.<sup>94</sup> These facilities are venues for training new workers and cultivating businesses. La Marquette, which City Council Speaker Quinn, Council Member Melissa Mark-Viverito, and the NYC EDC helped create, is a recent example.<sup>3</sup>
3. **Ensure That Government Support for the Local Food Economy Results Not Just in Additional Jobs, But the Creation of Good Jobs:** The City should

---

<sup>3</sup> “Speaker Quinn, NYCEDC Announce New Kitchen Incubator at La Marquette in East Harlem.” August 4, 2009.  
<http://www.nycedc.com/PressRoom/PressReleases/Pages/NYCEDCAnnounceNewKitchenIncubator.aspx>

require companies receiving City contracts or subsidies to pay a prevailing wage and provide health benefits for their workers.<sup>4</sup>

4. **Support the Rights of Farm Workers:** The New York State Legislature should safeguard labor rights for farm workers by passing legislation introduced by Assemblywoman Cathy Nolan (A. 1867B) and State Senator George Onorato (S. 2247B), which allows farm laborers one day of rest each week, allows them to collect overtime compensation and unemployment insurance, and gives them the right to organize.

### **Context:**

The Great Recession has hit New Yorkers in a profound and meaningful way - one in ten city residents is unemployed,<sup>95</sup> and approximately 19 percent of New Yorkers now live below the poverty line. While many have pointed to biotech or life sciences as industries that can diversify our economy, City government must also invest in expanding its large and vibrant food economy and use it to create good jobs that stay right here in New York City.<sup>96</sup><sup>5</sup>

These examples illustrate the potential benefits of targeted government support:

*(a) Markets:* The NYC DCP has launched the FRESH initiative to attract new supermarkets to food deserts.<sup>97</sup> And the New York City Department of Health and Mental Hygiene (NYC DOHMH) has done its part by helping bodegas stock healthy food. Though these initiatives are promising, they fail to leverage potential economic and environmental benefits for underserved neighborhoods and for the city as a whole. Currently, there are no job standards for the jobs created through FRESH. Supermarkets receiving city subsidies should hire local workers and pay “living wages” – the amount that people need to live decently and raise a family. The City should not subsidize poverty-level wages.

Similarly, the NYC DCP should establish green building standards for any new supermarkets built with FRESH subsidies. New building opportunities that stem from FRESH should involve new high efficiency equipment that has been shown to reduce energy consumption by some 60 percent; these upgrades are eligible for state subsidies

---

<sup>4</sup> For example, Council Member Melissa Mark-Viverito sponsored a bill that would establish a prevailing wage requirement for building service employees in buildings owned, or managed, in whole or in part by persons receiving financial assistance or rent derived from the city treasury (Intro 18-2010). <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=648823&GUID=1C04704A-7CC3-4728-BD33-0D3B95DE5E6F&Options=&Search>

<sup>5</sup> There is growing support for this idea, demonstrated by the United Food and Commercial Workers Local 1500 “Building Blocks Project,” the New York City Coalition Against Hunger call for a federal “Good Food, Good Jobs” initiative,<sup>5</sup> and most recently, by City Council Speaker Christine Quinn’s plans to introduce “Food Works” initiative, comprising of legislation and funding to promote the food economy.<sup>5</sup>

from the New York State Energy Research and Development Agency (NYSERDA).<sup>98</sup> The NYC DOHMH could expand on the Healthy Bodegas Initiative by working with bodegas to increase the energy efficiency of their refrigerated cases.

*(b) Restaurants:* The number of restaurants in the five boroughs increased by 25 percent between 2000 and 2008.<sup>99</sup> In 2008, almost 860,000 New Yorkers worked in the service sector. The New York minimum wage for food service workers is \$4.65, making food service workers dependent on business volume and their customers' tips.

New York City should consider convening a taskforce of restaurant owners for the purpose of developing cost effective methods to provide health insurance to restaurant workers and generally to improve their economic security. In San Francisco, to take one example, a city statute imposes a surcharge on restaurant patrons ranging from 1 to 3 percent their bill, thereby creating the financial resource needed to offer health coverage to restaurant employees.

As with supermarkets and bodegas, restaurants can benefit substantially from environmental improvements, such as CFL lights, energy efficient driers, or non toxic cleaners.<sup>100</sup> New York City Department of Small Business Services should work with NYSERDA to ensure that eligible New York City restaurants benefit from NYSERDA's energy efficiency programs.

*(c) Food manufacturers:* Food manufacturing accounts for 33,800 jobs in the five boroughs, and \$1.3 billion of the Gross City Product.<sup>101</sup> Average annual wages in this sector are \$32,000, a full \$6,000 more than average restaurant wages. Sixty-four percent of those employed in food manufacturing have a high school diploma or less, and 70 percent are immigrants.

New York City's specialty food industry has steadily grown since 2000, and that growth is expected to continue. In general, food manufacturing is less sensitive to economic change than other sectors,<sup>102</sup> and companies that produce niche products, particularly organic food, have fared well during this recession.<sup>103 104 105</sup> The size of New York City's population and the diversity of consumer preferences have allowed small-scale food manufacturers to thrive here, despite lacking economies of scale.<sup>106</sup> To protect this industrial sector, the NYC DCP and NYC EDC should work together to ensure that areas zoned for manufacturing are not infiltrated with non-manufacturing use.

## 10. DEPARTMENT OF FOOD AND MARKETS

---

**GOAL:** Create a Department of Food and Markets to coordinate and lead systemic reform of the City’s food and agricultural policies and programs.

### Recommendations:

1. **Create a Department of Food and Markets:** The Mayor should establish an independent new agency of equal status to other City departments to promote access to healthy affordable food, strengthen the food economy, and improve the city’s food infrastructure, among other objectives. This office will be well-positioned to coordinate policy and programmatic changes across City agencies and to work with the State Department of Agriculture and Markets, the New York State Food Policy Council, and the United States Department of Agriculture.
2. **Require PlaNYC to Address Food:** The New York City Council should amend Local Law 395-A which established the requirement for a “comprehensive environmental sustainability action plan for NYC,” so that the legislation includes food. The law currently mandates the Mayor’s Office of Long Term Planning and Sustainability to improve the environmental sustainability associated with housing, open space, brownfields, transportation, water quality and infrastructure, air quality, energy, and climate change.<sup>107</sup> The sustainability action plan for food should involve measuring and mitigating the environmental effects of the food system, where possible.

### Context:

Food is at the intersection of some of the city’s most daunting challenges, including obesity, hunger, and the recession.

Just as our municipal government oversees transportation, education, and sanitation, so too should it ensure that city residents have access to healthy and sustainable food. In fact, many City departments already influence what New Yorkers eat. The NYC DOE feeds 1.1 million students every day. The NYC DOHMH has banned trans fats, required chain restaurants to post calorie counts, and launched anti-obesity campaigns. The NYC DCP has conducted studies to assess whether New Yorkers have sufficient access to food. The problem is that there is no central oversight and coordination of these activities, leaving their success vulnerable to leadership changes, departmental culture, budgetary constraints, and competing policy aims.

A model for addressing this problem is the first comprehensive food policy plan issued by San Francisco Mayor Gavin Newsom in July of 2009. Prior to releasing his Executive

Order, the Mayor invited a range of urban and rural stakeholders to provide input. The suggestions offered by these stakeholders were released publicly, though the final Executive Order did not include every idea.<sup>108</sup> The recommendations that were included in the Executive Order focused on increased access to healthy food, strengthening the foodshed, and supporting urban farms and backyard gardens.

Here in New York City, the Office of Long-Term Planning and Sustainability will be required to update the City’s sustainability plan by April 2011.<sup>109</sup> This legislative mandate presents a prime opportunity for the City to develop a series of goals, actions, and policies to promote access to healthy food – and an agency to implement these goals. Government intervention and coordination are necessary to ensure that New Yorkers are “food secure” and have access to fresh and healthful foods from the local region and are not vulnerable to interruptions in the national and global food supply chain.

Without these resources, New York City will not be able to maximize the economic, health, and environmental benefits that can result from a strong regional and urban food system.

---

<sup>1</sup> Worldwatch Institute, “State of the World 2007: Our Urban Future.” November 21, 2006.  
<<http://www.worldwatch.org/taxonomy/term/467>>

<sup>2</sup> The Economist. “Food and Poverty: The Big Apple is Hungry,” January 14, 2010.  
<[http://www.economist.com/research/articlesBySubject/displaystory.cfm?subjectid=348876&story\\_id=15271055](http://www.economist.com/research/articlesBySubject/displaystory.cfm?subjectid=348876&story_id=15271055)>

<sup>3</sup> “Inventory of New York City Greenhouse Gas Emissions.” City of New York. September 2009.  
<[http://www.nyc.gov/html/planyc2030/downloads/pdf/greenhousegas\\_2009.pdf](http://www.nyc.gov/html/planyc2030/downloads/pdf/greenhousegas_2009.pdf)>

<sup>4</sup> London Development Agency, “Healthy and Sustainable Food for London,” May 2006.  
<[http://www.londonfoodstrategy.org.uk/upload/pdf/LDA\\_Food\\_strategy.pdf](http://www.londonfoodstrategy.org.uk/upload/pdf/LDA_Food_strategy.pdf)>

<sup>5</sup> “London’s Food Sector Greenhouse Gases.” Greater London Authority. June 2008.  
<[http://www.brooklyndhurst.co.uk/londons-food-sector-greenhouse-gas-emissions-\\_118?path=,118](http://www.brooklyndhurst.co.uk/londons-food-sector-greenhouse-gas-emissions-_118?path=,118)>

<sup>6</sup> N Rosenthal, E. New York Times. “To Cut Global Warming, Swedes Study Their Plates.” October 23, 2009. <<http://www.nytimes.com/2009/10/23/world/europe/23degrees.html>>

<sup>7</sup> Ibid.

<sup>8</sup> Mendes, W., Balmer, K., Kaethler, T., Rhoades, A. “Using Land Inventories to Plan for Urban Agriculture: Experiences From Portland and Vancouver.” *Journal of the American Planning Association*. September, 2008. <<http://www.informaworld.com/smpp/content~content=a902335069~db=all>>

<sup>9</sup> Capital Growth Campaign homepage: <<http://www.capitalgrowth.org/>>

<sup>10</sup> Million Trees NYC homepage: <<http://www.milliontreesnyc.org/html/about/about.shtml>>

<sup>11</sup> McLaughlin, L. “Inner City Farms.” *Time* v. 172 no. 5 (August 4 2008) p. 67-8

- 
- <sup>12</sup> New York City Council: Resolution 1980-2009, sponsored by Councilwoman Helen Foster. Text can be found here: <<http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=452496&GUID=FA0344AA-52E5-42DE-AE7A-EB53E89D3386&Options=ID%7cText%7c&Search=community+gardens>>
- <sup>13</sup> Cleveland, OH: The nation's first zoning code for "Urban Garden Districts" was created in March 2008 to ensure that urban gardens are appropriately located and protected to meet the city's needs: <[http://caselaw.lp.findlaw.com/clevelandcodes/cco\\_part3\\_336.html](http://caselaw.lp.findlaw.com/clevelandcodes/cco_part3_336.html)>  
Boston, MA: An Open Space zoning designation with a community garden sub-district within that district. Greenhouses explicitly mentioned as accessory structures: <[www.cityofboston.gov/parks/pdfs/os4b.pdf](http://www.cityofboston.gov/parks/pdfs/os4b.pdf)>  
Seattle, WA: Twenty year Comprehensive Plan includes community gardens and sets specific goals for a community garden for every 2,500 households: <[http://www.communitygarden.org/docs/cg\\_policies.pdf](http://www.communitygarden.org/docs/cg_policies.pdf)>
- <sup>14</sup> City Farmer, Canada's Office of Urban Agriculture. "44% of Vancouver Households Grow Food says City Farmer." Urban Agriculture Notes. September 22, 2002. <<http://www.cityfarmer.org/44percent.html>>
- <sup>15</sup> Cities Farming for the Future: Urban Agriculture for Green and Productive Cities. Edited by René van Veenhuizen, RUA Foundation, International Institute of Rural Reconstruction, International Development Research Center. 2006.
- <sup>16</sup> Alberto Zezzo and Luca Tasciotti. "Does Urban Agriculture Enhance Dietary Diversity? Empirical Evidence from a Sample of Developing Countries." Food and Agriculture Organization (FAO), Agriculture and Development Economic Division. October 23, 2007. <[ftp://ftp.fao.org/docrep/fao/011/aj306e/aj306e.pdf](http://ftp.fao.org/docrep/fao/011/aj306e/aj306e.pdf)>
- <sup>17</sup> "Design Considerations for the Implementation of Green Roofs." Metro Vancouver. April, 2009. <<http://www.metrovancouver.org/about/publications/Publications/greenroofreporttext.pdf>>
- <sup>18</sup> "World first: Brisbane Addresses Climate Change with Urban Agriculture and Green Roofs." Urban Agriculture Network Australia. May 1, 2007. <<http://urbanagriculture.wordpress.com/2007/05/01/world-first-brisbane-addresses-climate-change-with-urban-agriculture-and-green-roofs/>>
- <sup>19</sup> Miller, T. "New York City Farms and Community Gardens Gear Up for Spring with Increased Interest." New York Daily News. April 8, 2009. <[http://www.nydailynews.com/lifestyle/food/2009/04/09/2009-04-09\\_new\\_york\\_city\\_farms\\_and\\_community\\_gardens\\_gear\\_up\\_for\\_spring\\_with\\_increased\\_inte.html](http://www.nydailynews.com/lifestyle/food/2009/04/09/2009-04-09_new_york_city_farms_and_community_gardens_gear_up_for_spring_with_increased_inte.html)>
- <sup>20</sup> Memorandum of Understanding between former New York State Attorney General Eliot Spitzer and New York City Corporation Counsel Michael Cardozo, dated September 17, 2002: <[http://www.nycgcc.org/files/community\\_gardens\\_agreement.pdf](http://www.nycgcc.org/files/community_gardens_agreement.pdf)>
- <sup>21</sup> Schwartz, A. "Gotham Greens Building First Hydroponic Rooftop Farm in NYC." Fast Company. June 15, 2009. <<http://www.fastcompany.com/blog/ariel-schwartz/sustainability/gotham-greens-building-first-hydroponic-rooftop-farm-nyc>>
- <sup>22</sup> "New York City Regional Foodshed Initiative." Columbia University, The Earth Institute at Columbia University: Urban Design Lab. <[http://www.urbandesignlab.columbia.edu/?pid=nyc\\_foodshed](http://www.urbandesignlab.columbia.edu/?pid=nyc_foodshed)>
- <sup>23</sup> California Agricultural Vision, found on the California Department of Food and Agriculture website: <<http://www.cdffa.ca.gov/agvision/>>
- <sup>24</sup> American Farmland Trust. "Legislative Public Hearings on the 2007-2008 Executive Budget Proposal." March 5, 2007. <[http://www.farmland.org/programs/states/documents/AFT\\_NY\\_BudgetTestimony\\_2007.pdf](http://www.farmland.org/programs/states/documents/AFT_NY_BudgetTestimony_2007.pdf)>
- <sup>25</sup> United States Department of Agriculture: Economic Research Service. New York State Fact Sheet: <<http://www.ers.usda.gov/Statefacts/NY.HTM>>
- <sup>26</sup> Jack Kloppenburg, Jr., John Hendrickson, and G.W. Stevenson. "Coming in to the Foodshed." Agriculture and Human Values 13:3 (Summer): 33 – 42. 1996.
- <sup>27</sup> Market Ventures, Inc./Karp Resources. Final Report: NYC Wholesale Farmers' Market Study. Albany. January 2005, pg 8. <<http://www.marketventuresinc.com/download/NYC-WFM-ExecSum-Phase-1.pdf>>
- <sup>28</sup> The 200 mile radius is derived from the definition of "local" in the New York State Food Policy Council 2009 report to the Governor. "Local" food is defined as travelling 400 miles from origin to destination: <[http://www.nyscfp.org/docs/NYS\\_CFP\\_Final\\_Report\\_2009.pdf](http://www.nyscfp.org/docs/NYS_CFP_Final_Report_2009.pdf)>
- <sup>29</sup> Memo from the USDA Deputy Secretary Kathleen Merrigan on August 26, 2009 re: "Harnessing USDA Rural Development programs to support local and regional food systems."

- <<http://www.washingtonpost.com/wp-srv/artsandliving/foodanddining/documents/merrigan-local-food-memo.pdf>>
- <sup>30</sup> Peters, C. J., J. L. Wilkins, and G. W. Fick. "Testing a complete-diet model for estimating the land resource requirements of food consumption and agricultural carrying capacity: The New York State example." *Renewable Agriculture and Food Systems* 22(2); 145-153.
- <sup>31</sup> "Policy Guide on Community and Regional Food Planning." American Planning Association. May 11, 2007: <<http://www.planning.org/policy/guides/adopted/food.htm>>
- <sup>32</sup> Tim LaSalle, PhD. and Paul Hepperly, PhD. "Regenerative Organic Farming: A Solution to Global Warming." Rodale Institute. July 30, 2008.  
<[http://www.rodaleinstitute.org/files/Rodale\\_Research\\_Paper-07\\_30\\_08.pdf](http://www.rodaleinstitute.org/files/Rodale_Research_Paper-07_30_08.pdf)>
- <sup>33</sup> "Organic Production / Organic Food: Information Access Tools." United States Department of Agriculture, National Agricultural Library. Compiled by Mary V. Gold. June 2007.  
<<http://www.nal.usda.gov/afsic/pubs/ofp/ofp.shtml>>
- <sup>34</sup> Michael Shuman, "Economic Impact of Localizing Detroit's Food System," Fair Food Foundation, <<http://www.fairfoodnetwork.org/pdf/handout070617.pdf>>
- <sup>35</sup> United States Department of Agriculture: Economic Research Service. New York State Fact Sheet: <<http://www.ers.usda.gov/Statefacts/NY.HTM>>
- <sup>36</sup> American Farmland Trust: New York State Profile: <<http://www.farmland.org/programs/states/ny/default.asp>>
- <sup>37</sup> Council on the Environment of New York City, Wholesale Greenmarket: <<http://www.cenyc.org/wholesale>>
- <sup>38</sup> "Governor Paterson, Mayor Bloomberg, Speaker Quinn Announce Comprehensive Strategies to Expand Grocery Stores in Underserved Neighborhoods." New York State Department of Agriculture and Market News. May 16, 2009. <<http://www.agmkt.state.ny.us/AD/release.asp?ReleaseID=1817>>
- <sup>39</sup> Market Ventures, Inc./Karp Resources. "Final Report: NYC Wholesale Farmers' Market Study." Albany. January 2005, pg 8. <<http://www.marketventuresinc.com/download/NYC-WFM-ExecSum-Phase-1.pdf>>
- <sup>40</sup> Hunts Point Taskforce, City of New York. "Hunts Point Visions Plan." Fall 2004.
- <sup>41</sup> Office of the State Comptroller. "An Economic Snapshot of the Hunts Point Distribution Center." December 2008. <<http://www.osc.state.ny.us/reports/economic/huntspoint08.pdf>>
- <sup>42</sup> Ibid.
- <sup>43</sup> Ibid.
- <sup>44</sup> New York State Department of Agriculture and Markets:  
<http://www.agmkt.state.ny.us/AD/release.asp?ReleaseID=1847>
- <sup>45</sup> Angela Gloy, Ph.D. "Understanding Perishable Product Distribution in NY and Producer Opportunities." November 5, 2007.
- <sup>46</sup> "Iowa Farmers' Market Development Manual." Iowa Department of Agriculture.  
<<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5062527>>
- <sup>47</sup> Ibid.
- <sup>48</sup> Ibid. For example see "Pennsylvania \$45,000 to Penn's Corner Farm Alliance to purchase refrigerated storage and other necessary equipment to improve the farm's infrastructure capacity..." on United States Department of Agriculture Press release entitled "Conner Awards Nearly \$1 Million to Promote Farmers Markets." October 1, 2007.  
<[http://www.usda.gov/wps/portal/!ut/p/\\_s.7\\_0\\_A/7\\_0\\_1OB?contentidonly=true&contentid=2007/10/0273.xml](http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_1OB?contentidonly=true&contentid=2007/10/0273.xml)>
- <sup>49</sup> New York City Department of City Planning. "Going to Market: New York City's Neighborhood Grocery Store and Supermarket Shortage."  
<<http://www.nyc.gov/html/dcp/html/supermarket/index.shtml>>
- <sup>50</sup> Andrew Rundle, Kathryn M. Neckerman, Lance Freeman, Gina S. Lovasi, Marnie Purciel, James Quinn, Catherine Richards, Neelanjan Sircar, and Christopher Weiss, "Neighborhood Food Environment and Walkability Predict Obesity in New York City," *Environmental Health Perspectives*, Volume 117, Number 3, March 2009, Pages 442-447.  
Department of Health and Mental Hygiene. "Eating Well in Harlem: How Available Is Healthy Food?" A Report from the East and Central Harlem District Public Health Office. May 2007.  
<<http://www.nyc.gov/html/doh/downloads/pdf/dpho/dpho-harlem-report2007.pdf>>;

- 
- <sup>51</sup> New York City Office of the Mayor Press Release.  
<[http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor\\_press\\_release&catID=1194&doc\\_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2009a%2Fpr222-09.html&cc=unused1978&rc=1194&ndi=1](http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor_press_release&catID=1194&doc_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2009a%2Fpr222-09.html&cc=unused1978&rc=1194&ndi=1)> May 2009.
- <sup>52</sup> For example, ten new supermarkets were opened in low income communities in 2006 to address issues relating to hunger and nutrition. Chan, Sewell, “New Farmers’s Markets to Open in Low-Income Neighborhoods,” *New York Times*, 6/26/2008. <[http://www.nytimes.com/2006/06/26/nyregion/26mbrf-005.html?\\_r=1&scp=1&sq=%22Ten%20new%20farmers’s%20markets%22&st=cse](http://www.nytimes.com/2006/06/26/nyregion/26mbrf-005.html?_r=1&scp=1&sq=%22Ten%20new%20farmers’s%20markets%22&st=cse)>
- <sup>53</sup> New York State Department of Agriculture and Markets. New York State Farmers’s Markets:  
<<http://www.agmkt.state.ny.us/AP/CommunityFarmersMarkets.asp>>
- <sup>54</sup> Article 17 of the Agriculture and Markets Law
- <sup>55</sup> New York State Department of Agriculture and Markets. Sanitary Regulations for Direct Marketing:  
<<http://www.agmkt.state.ny.us/FS/industry/sanitary.html>>
- <sup>56</sup> New York State Department of Agriculture and Markets. New York State Farmers’ Markets:  
<<http://www.agmkt.state.ny.us/AP/CommunityFarmersMarkets.asp>>
- <sup>57</sup> Environmental Investigation Agency. “Chilling Facts: Supermarket Refrigeration Scandal Uncovered.” Environmental Investigation Agency. February 2010. <<http://www.eia-international.org/cgi/news/news.cgi?t=template&a=499>>
- <sup>58</sup> New York State Council on Food Policy Report to Governor David A. Paterson. Making Connections: Developing a Food System for a Healthier New York State. Recommended State Food Policies. December 2009, pg 9. <[http://www.nyscfp.org/docs/NYS\\_CFP\\_Final\\_Report\\_2009.pdf](http://www.nyscfp.org/docs/NYS_CFP_Final_Report_2009.pdf)>
- <sup>59</sup> Ibid.
- <sup>60</sup> Ibid.
- <sup>61</sup> Liz Brock, David Haight, and Jerry Cosgrove. “Picking Up the Pace: A Road Map for Accelerating Farmland Protection in New York.” American Farmland Trust. January 2007.  
<[http://www.farmland.org/programs/states/documents/AFT\\_PickingUpthePace\\_NewYork\\_January07.pdf](http://www.farmland.org/programs/states/documents/AFT_PickingUpthePace_NewYork_January07.pdf)>
- <sup>62</sup> “Towards an Ethical Food System: Considerations and Recommendations for Local Food Procurement.” Report to Administration and Board of Trustees of DePaul University. April 2008.  
<[http://www.depauw.edu/univ/sustain/documents/K\\_Local\\_Food\\_Initiative\\_Final.pdf](http://www.depauw.edu/univ/sustain/documents/K_Local_Food_Initiative_Final.pdf)>
- <sup>63</sup> Sonntag, Viki PhD. “Why Local Linkages Matter: Findings from the Local Food Economy Study.” Sustainable Seattle. April 2008.  
<<http://sustainableseattle.org/Programs/LFE%20Files/LFE%20REPORT%20FINAL.pdf>>
- <sup>64</sup> Note: Kids First is a collaboration between the Rhode Island Department of Environmental Management/Division of Agriculture, the Rhode Island Department of Health, the Rhode Island Department of Education, Farm Fresh Rhode Island, the Rhode Island Farm Bureau, Southside Community Land Trust, Rhode Island public and independent schools and Rhode Island farmers.
- <sup>65</sup> Telephone conversation with Dorothy Brayley, Executive Director of Kids First, January 15, 2010.
- <sup>66</sup> Telephone conversation with Dorothy Brayley, Executive Director of Kids First, January 15, 2010.
- <sup>67</sup> NYC DOHMH School Health site: <<http://www.nyc.gov/html/doh/html/scah/scah-obesity.shtml>>
- <sup>68</sup> The Department provides guidelines for incorporating HIV/AIDS education into the curriculum of every grade K-12. Principals are required to assure that a minimum of five HIV/AIDS lessons are taught every year in elementary school, and six in every middle and high school grade:  
<<http://schools.nyc.gov/Academics/FitnessandHealth/StandardsCurriculum/HIVAIDSoverview.htm>>
- <sup>69</sup> The New York City Department of Education Wellness Policies on Physical Activity and Nutrition. November 2006: <<http://www.nyc.gov/html/doh/downloads/pdf/cdp/cdp-pan-programs-schoolwellness-policy.pdf>>
- <sup>70</sup> California Department of Education. A Garden in Every School:  
<<http://www.cde.ca.gov/ls/nu/he/garden.asp>>
- <sup>71</sup> Meatless Mondays: <<http://www.meatlessmonday.com/baltimore-schools/>>
- <sup>72</sup> New York City Department of Education SchoolFood homepage: <<http://www.opt-osfns.org/osfns/>>
- <sup>73</sup> NYC DOHMH School Health website: <<http://www.nyc.gov/html/doh/html/scah/scah-obesity.shtml>>
- <sup>74</sup> Whitaker RC, Wright JA, Pepe MS, Seidel KD, Dietz WH. Predicting obesity in young adulthood from childhood and parental obesity. *N Engl J Med* 1997; 37(13):869–873.



- <sup>75</sup> “Qualitative studies documented... positive social and environmental behavior,” including increased preference for environmentally-friendly purchases. Dorthy, B. “The Child in the Garden: An Evaluative Review of the Benefits of School Gardens.” *Journal of Environmental Education*; Winter, Vol. 40 Issue 2, p15-38 -2009
- <sup>76</sup> McAleese, J. D. & L. L. Ranklin. “Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents.” *Journal of the American Dietetic Association* 2007; 107:662-665
- <sup>77</sup> Schaff, N. “Kids Growing Food: school food gardens as tools for learning.” Cornell University. February 2005. <<http://vivo.cornell.edu/individual/vivo/individual16732>>
- <sup>78</sup> Ibid.
- <sup>79</sup> Blair, D. The Child in the Garden: An Evaluation Review of the Benefits of School Gardening. *The Journal of Environmental Education* 2009; 40(2): 15-38.
- <sup>80</sup> Robinson-O’Brian, R, et al. Impact of Garden-Based Youth Nutrition Intervention Programs: A Review. *Journal of the American Dietetic Association*. 2005; 109(2): 273-280.
- <sup>81</sup> Smit, J., A. Ratta, and J. Nasr, 1996, Urban Agriculture: Food, Jobs, and Sustainable Cities. United Nations Development Programme(UNDP)
- <sup>82</sup> Examples: The National Gardening Association, Lowe’s Toolbox for Education, and the New York Agriculture in the Classroom’s Kids Growing Food program
- <sup>83</sup> GreenThumb Homepage: <<http://greenthumbnyc.org/about.html>>  
Food Systems NYC: 2008-9 Garden to School Café Pilot Project:  
<<http://www.foodsystemsny.org/files/GardentoCafeOverview2008-2009.pdf>>
- <sup>84</sup> Department of Environmental Conservation, Regulations and Enforcement:  
<http://www.dec.ny.gov/regs/4411.html>
- <sup>85</sup> “2004-2005 NYC Residential and Street Basket Waste Characterization Study: Comparison to the EPA’s National Municipal Waste Characterization Study”  
<[http://www.nyc.gov/html/nycwasteless/downloads/pdf/wastecharreports/wcsfinal/highlights/wcs\\_13\\_rh\\_UScomparison.pdf](http://www.nyc.gov/html/nycwasteless/downloads/pdf/wastecharreports/wcsfinal/highlights/wcs_13_rh_UScomparison.pdf)>
- <sup>86</sup> New York State Department of Environmental Conservation:  
<[http://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/waterbottles.pdf](http://www.dec.ny.gov/docs/materials_minerals_pdf/waterbottles.pdf)>
- <sup>87</sup> New York State, Executive Order No 18: Restricting the Use of Bottled Water at State Facilities and Promoting Executive Agency Sustainability.”  
<[http://www.state.ny.us/governor/executive\\_orders/xeorders/eo\\_18.html](http://www.state.ny.us/governor/executive_orders/xeorders/eo_18.html)>
- <sup>88</sup> Fuller, Andrea. “Quality of Bottled Water Questioned in Congress.” *New York Times*. July 8, 2009.  
<<http://www.nytimes.com/2009/07/09/us/politics/09bottle.html>>
- <sup>89</sup> New York State Department of Environmental Conservation: Water Bottle Fact Sheet.  
<<http://www.dec.ny.gov/chemical/51377.html>>
- <sup>90</sup> The U.S. Conference of Mayors, 76<sup>th</sup> Annual Meeting, June 20-24, 2008. 208 Adopted Resolutions: Supporting Municipal Water Systems.  
<[http://usmayors.org/resolutions/76th\\_conference/environment\\_07.asp](http://usmayors.org/resolutions/76th_conference/environment_07.asp)>
- <sup>91</sup> United States Centers for Disease Control and Prevention: Overweight and Obesity:  
<<http://www.cdc.gov/obesity/childhood/causes.html>>
- <sup>92</sup> Rebecca Muckelbauer, Lars Libuda, Kerstin Clausen, Andre Michael Toschke, Thomas Reinehr, and Mathilde Kersting. “Promotion and Provision of Drinking Water in Schools for Overweight Prevention: Randomized, Controlled Cluster Trial.” *Pediatrics*. Vol. 123, No. 4. April 2009. Pp. e661-e667.  
<<http://pediatrics.aappublications.org/cgi/content/abstract/123/4/e661>>
- <sup>93</sup> American Planning Association. “Policy Guide on Community and Regional Food Planning.” May 11, 2007: <<http://www.planning.org/policy/guides/adopted/food.htm>>
- <sup>94</sup> “Speaker Quinn, NYCEDC Announce New Kitchen Incubator at La Marquetta in East Harlem.” NYC EDC Press Release. August 4, 2009:  
<<http://www.nycedc.com/PressRoom/PressReleases/Pages/NYCEDCAnnounceNewKitchenIncubator.aspx>>
- <sup>95</sup> New York State Department of Labor. “New York State’s Unemployment Rate Climbs to 9.0 Percent in December.” January 21, 2010. <<http://www.labor.state.ny.us/stats/PressReleases/pruistat.htm>>
- <sup>96</sup> Alison Blay-Palmer and Betsy Donald. “A Tale of Three Tomatoes: The New Food Economy in Toronto, Canada.” *Economic Geography* 82(4): 383-399. 2006.

- 
- <[http://www.gtalocalfood.ca/pdfs/The\\_New\\_Food\\_Economy\\_Toronto.pdf](http://www.gtalocalfood.ca/pdfs/The_New_Food_Economy_Toronto.pdf)>
- <sup>97</sup> Berg, Joel. "Good Food, Good Jobs: Turning Food Deserts into Jobs Oases." *Progressive Fix: The Place for Pragmatic Progressives*. December 8, 2009. <[www.progressivefix.com/joel-berg-good-food-good-jobs](http://www.progressivefix.com/joel-berg-good-food-good-jobs)>
- <sup>98</sup> New York State Energy Research and Development Authority. "NYSDERA's Investments in Early Stage Technologies Achieved Significant Milestones in 2008 to Help Grow New York's Clean Energy Economy." New York State Energy Research and Development Authority. December 30, 2009. <[http://www.nysderda.org/Press\\_Releases/2009/PressReleas20091230.asp](http://www.nysderda.org/Press_Releases/2009/PressReleas20091230.asp)>
- <sup>99</sup> Center for Urban Research. "Employment in New York City Restaurants." Center for Urban Research. <[http://www.urbanresearch.org/docs/lmis\\_pubs/NYCLMIS%20Restaurants%207221\\_7222%20Profile.v2.pdf](http://www.urbanresearch.org/docs/lmis_pubs/NYCLMIS%20Restaurants%207221_7222%20Profile.v2.pdf)>
- <sup>100</sup> Green Restaurant Association: <http://dinegreen.com/restaurants/benefits.asp>
- <sup>101</sup> "More Than a Link in a Food Chain: A Study of the Citywide Economic Impact of Food Manufacturing in New York City." A Report by New York Industrial Retention Network and Fiscal Policy Institute for the Mayor's Office of Industrial and Manufacturing Businesses. February, 2007. <[http://www.nyc.gov/html/imb/downloads/pdf/more\\_than\\_link\\_food\\_chain.pdf](http://www.nyc.gov/html/imb/downloads/pdf/more_than_link_food_chain.pdf)>
- <sup>102</sup> United States Department of Labor: Bureau of Labor Statistics. "Career Guide to Industries, 2010-11 Edition." <http://www.bls.gov/oco/cg/cgs011.htm>
- <sup>103</sup> Haughney, C. "In New York, No Crisis for Niche Manufacturers." *New York Times*. January 10, 2009. <[http://www.nytimes.com/2009/01/11/nyregion/11manufacture.html?pagewanted=1&\\_r=1](http://www.nytimes.com/2009/01/11/nyregion/11manufacture.html?pagewanted=1&_r=1)>
- <sup>104</sup> Alison Blay-Palmer and Betsy Donald. "A Tale of Three Tomatoes: The New Food Economy in Toronto, Canada." *Economic Geography* 82(4): 383-399. 2006. <[http://www.gtalocalfood.ca/pdfs/The\\_New\\_Food\\_Economy\\_Toronto.pdf](http://www.gtalocalfood.ca/pdfs/The_New_Food_Economy_Toronto.pdf)>
- <sup>105</sup> Schwaner-Albright, O. "Brooklyn's New Food Movement." *New York Times*. February 24, 2009. <<http://www.nytimes.com/2009/02/25/dining/25brooklyn.html?pagewanted=1>>
- <sup>106</sup> "More Than a Link in a Food Chain: A Study of the Citywide Economic Impact of Food Manufacturing in New York City." A Report by New York Industrial Retention Network and Fiscal Policy Institute for the Mayor's Office of Industrial and Manufacturing Businesses. February, 2007. <[http://www.nyc.gov/html/imb/downloads/pdf/more\\_than\\_link\\_food\\_chain.pdf](http://www.nyc.gov/html/imb/downloads/pdf/more_than_link_food_chain.pdf)>
- <sup>107</sup> New York City Council: Resolution 395-2006, sponsored by Councilman James Gennaro. Text can be found here: <<http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=446181&GUID=D94C5227-81E3-44C5-8386-DBE4B23A6E79&Options=ID|Text|&Search=planyc>>
- <sup>108</sup> "Mayor Newsom Announces Regional Food Policy for San Francisco and Several New Food Initiatives." *Roots of Change*. July, 8, 2009. <<http://www.rocfund.org/panels/panels/mayor-newsom-announces-regional-food-policy-for-san-francisco-and-several-new-food-initiatives>>
- <sup>109</sup> New York City Council: Introduction 395-2006, sponsored by Councilman James Gennaro. Text can be found here: <<http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=446181&GUID=D94C5227-81E3-44C5-8386-DBE4B23A6E79&Options=ID|Text|&Search=planyc>>

## IV. ADDENDUM

### New York City Food & Climate Summit

Saturday, December 12, 2009

New York University's Jack H. Skirball Center for the Performing Arts

Participants in policy sessions were asked their ideas about how to address policy challenges. Below, you can find a summary of these ideas:

#### 1. Urban Agriculture: Community Gardens, Urban Farms, and More

Attendance<sup>1</sup>: 173

Goal: Identify ways to remove persistent barriers to community gardening, urban farming, and other methods of growing food in cities—which reduce climate change and help us adapt to its effects.

Most popular ideas:

1. Education on farming and food in schools.
2. City incentives to promote farm businesses and encourage private land owners to allow their land to be gardened or farmed.
3. Government support through a land inventory, city agency, or citywide composting.

#### 2. Urban Agriculture: Roofs, Walls, and Other Under-Utilized Spaces

Attendance: 185

Goal: Uncover policies to advance urban agriculture and address climate change by gardening or farming on underutilized space including roofs, walls, and government property.

Most popular ideas:

---

<sup>1</sup> All attendance data is based on the number of participants who registered to attend each section.

1. Tax incentives and education to promote urban agriculture on rooftops.
2. Education to promote urban agriculture and train new gardeners, farmers, and entrepreneurs.
3. Public policies that support urban agriculture to ensure that land is accessible and safe, and that resources such as composting are available.

### **3. The Food Shed: Promoting Sustainable Local Agriculture**

Attendance: 100

Goal: Identify opportunities to promote a sustainable regional food supply through farmland preservation, watershed protection, climate adaptation, and animal husbandry.

Most popular ideas:

1. Infrastructure and distribution.
2. Access to and preservation of land.
3. Education.
4. City government agency or body to promote access to regional food.

### **4. The Food Shed: Harnessing New Yorkers' Buying Power**

Attendance: 83

Goal: Learn about bottlenecks that prevent local farmers from reaching hungry New Yorkers and brainstorm about new market mechanisms to promote healthy, local food procurement.

Most popular ideas:

1. Improving transportation and distribution infrastructure.
2. Providing greater public education about regional food and farmer training.

3. Creating public-private partnerships and other creative funding models to support mid-sized farms.

## **5. Greening Food Infrastructure**

Attendance: 72

Goal: Identify policies to reduce energy use, improve water conservation, and reduce greenhouse gas emissions associated with the local food system, from production and distribution to refrigeration and disposal.

Most popular ideas:

1. Management of residential, business, and municipal food waste to ensure its diversion from landfills.
2. Zoning and incentives to promote food growth, particularly on rooftops.
3. Education of consumers and businesses about best practices regarding sustainable management of food.
4. Master plan to promote sustainable food distribution.

## **6. Setting an Agenda for Child Nutrition, School Food and Food Education**

Attendance: 159

Goal: Reduce hunger and obesity, and improve environmental education by bolstering child nutrition programs, farm-to-school initiatives, and school gardening.

Most popular ideas:

1. Create curriculum in schools to address pressing issues.
2. Promote local, healthy food procurement through government mandate or tax incentives.
3. Serve healthier food in schools and increase funding through the Child Reauthorization Act to help achieve this objective.

4. Create infrastructure that reflects healthy food as a priority, including dedicated staff in the Department of Education, gardens, and food processing.

## **7. Institutional Procurement: Buy Local and Sustainable**

Attendance: 83

Goal: Remove barriers constraining government agencies, nonprofit organizations, and private institutions from purchasing more sustainable food.

Most popular ideas:

1. Stronger labor policies.
2. Infrastructure, incentives, or tax policy to promote procurement of goods produced in the local region or through sustainable practices.
3. Mandates for local food processing.
4. Increased government support and education.

## **8. From Farm to Landfill: Reducing Food Waste in NYC**

Attendance: 44

Goal: Find ways to reduce in NYC's waste stream the amount of food that needs to be transported, or that would contribute to landfills and result in methane emissions.

Most popular ideas:

1. Education about food waste, its environmental impact, and opportunities to reduce this waste.
2. Tax breaks and tax credits to encourage the diversion of food waste from the waste stream.
3. Encouragement of small-scale, individual, and decentralized composting.

4. More facilities and space, and more partnerships with farms to promote large-scale composting.

## **9. Structural Discrimination Related to Food and Climate Change**

Attendance: 130

Goal: Promote environmental justice for low-income communities and people of color, and discuss policies New York City can adopt to reduce high rates of asthma, heart disease, obesity, and hunger.

Most popular ideas:

1. End tax abatements for fast food and offer tax breaks for healthy food businesses in underserved neighborhoods.
2. Entrepreneurship opportunities, micro-loans, and job training to promote job creation.
3. Permanent indoor sites to promote access to community gardens, community supported agriculture (CSA), urban farms, and greenmarkets, particularly in low-income neighborhoods.

## **10. The Food-Collar Economy**

Attendance: 85

Goal: Find ways to attract and retain good farming, food processing, and retail jobs in the NYC region to reduce hunger, promote health and sustainability, and strengthen the local economy.

Most popular ideas:

1. Municipal procurement of regional food.
2. Higher wages and benefits for workers.
3. Comprehensive labor training in the food sector.



**SCOTT M. STRINGER**  
**MANHATTAN BOROUGH PRESIDENT**

Municipal Building One Centre Street, 19th Floor New York, NY 10007

Tel: 212.669.8300 Fax:212.669.4306

Northern Manhattan Office 163 West 125th Street, 5th Floor New York, NY 10027

Tel: 212.531.1609 Fax: 212.531.4615

[www.mbpo.org](http://www.mbpo.org)