



# A Toolkit for Incorporating Plant-Based Protein Measures in Municipal Climate Action Plans

*Equipping municipalities to increase the availability of  
plant-based proteins and engage the public on their benefits*

Linda Breggin, Senior Attorney and Director, Center for State and Local Governance,  
Environmental Law Institute

Sarah Backer, Research Associate, Environmental Law Institute

# Municipal Climate Action Plans

- Urban areas have an outsized carbon footprint and are on the frontlines of adapting to climate change.
- Many U.S. cities have developed Climate Action Plans (CAP).
  - 35 out of the 50 largest U.S. cities have CAPs (Ballotpedia 2022).
  - Global Covenant of Mayors for Climate and Energy (GCoM) has over 13,000 participant cities worldwide.
- CAP development processes, content and format vary widely.



# Municipal Climate Action Plans (continued)

- Common approaches (e.g., GCoM participants) include:
  - Conduct a greenhouse gas emissions inventory using the *Global Protocol for Community Scale GHG Emission Inventories*;
  - Develop mitigation targets and adaptation goals; and
  - Identify actions to achieve targets and goals.
- CAPs typically do not contain actions to reduce emissions associated with food (aside from food waste).



# *Municipal Climate Action Plans (continued)*

## Global Protocol for Community-Scale GHG Inventories



Does not include emissions embedded in the goods and services consumed in the city that are imported from outside (Scope 3 emissions).



Encourages cities to “seek to address their consumption-based emissions” in order to:

“take a more holistic approach to tackling climate change by assessing the GHG impact of their supply chains;” and

“identify areas of shared responsibility for upstream and downstream GHG emissions.”

# *Toolkit Purpose*

- Food accounts for an estimated 25 percent or more of U.S. households' consumption-based emissions.
- Plant-based proteins contribute *the least* to protein food-related emissions (i.e., low carbon footprint per gram of protein).
- Municipalities can leverage plant-based proteins for climate action, while achieving a range of other benefits.
- Because few CAPs include plant-based protein actions, the Toolkit is intended to address this gap.
- The Toolkit is designed to make it easier for municipalities to include CAP actions to:
  - *increase the availability of plant-based proteins; and*
  - *engage the public on their benefits.*



**A Toolkit for Incorporating  
Plant-Based Protein Measures in  
Municipal Climate Action Plans**

*Equipping municipalities to increase the  
availability of plant-based proteins and engage  
the public on their benefits*

# Structure of the *Toolkit*

The *Toolkit* consists of two parts:

- **Part 1**—Menu of Plant-Based Protein Actions
  - Over 40 actions ranging from ambitious to incremental
- **Part 2**—Key Considerations
  - Climate benefits
  - Co-benefits
  - Challenges
  - Legal and policy considerations

# Toolkit Methodology

- Researched sustainable food-related actions in municipal CAPs and food system/sustainability plans from 36 geographically and size-diverse U.S. cities to identify best practices and gaps.
- The Menu includes over 40 actions, ranging from ambitious to incremental.
  - Identified examples in existing plans and provided links.
  - Created novel actions.
- Conducted interviews and vetted drafts with experts.

**Municipalities can tailor the example actions to their specific contexts, depending on stakeholder priorities and available resources.**

# Menu Categories



**1. Emissions Targets and Tracking:** Establishing food-related GHG emissions reduction targets and measuring progress



**2. Increased Availability:** Increasing the number of meals served or offered that contain plant-based proteins



**3. Municipal Procurement:** Increasing the procurement of plant-based proteins by municipalities



**4. Public Awareness:** Educating and engaging the public on the climate benefits as well as the many co-benefits of plant-based proteins



**5. Leadership and Recognition:** Recognizing and rewarding businesses and organizations that demonstrate leadership in increasing the availability of plant-based proteins and engaging the public on their benefits



**6. Incentives, Funding, and Technical Assistance:** Supporting businesses and organizations seeking to expand plant-based protein offerings and to facilitate access to plant-based proteins, especially in communities that lack adequate access.



**7. Cooperation and Pledges:** Endorsing international, national, and state initiatives that promote plant-based proteins



# Sample Menu Page

## 2. INCREASED AVAILABILITY

Actions to increase the number of meals served or offered that contain plant-based proteins (Some of these actions implicate and can be strengthened by actions from Category 3, Municipal Procurement.)

	Action	Examples	Resources	Outreach Tools
2.A.	<p>Institute weekly menu initiative (e.g., Veggie Tuesdays, Green Mondays, Plant Powered Fridays) for municipal operations; encourage semi-autonomous and quasi-governmental entities (e.g., correctional facilities, public schools, hospitals, convention centers) to institute their own.</p>	<p><a href="#">Seattle, WA</a> (p.71)</p> <p><a href="#">Portland, OR</a> (p.81)</p> <p><a href="#">Escambia County, FL</a></p> <p><a href="#">Pittsburgh, PA</a> (p.67)</p> <p><a href="#">Blacksburg, VA</a> (p.21)</p> <p><a href="#">Dallas, TX</a> (p.159)</p> <p><a href="#">Santa Ana, CA</a></p> <p><a href="#">Lee County, FL</a></p>	<p><b>Johns Hopkins Center for a Livable Future, <a href="#">Evaluation of the Meatless Monday Campaign at New York Presbyterian</a></b></p> <p><b>The Monday Campaigns, <a href="#">Marketing Plant-Based Menu Items</a></b></p> <p><b>The Behavioural Insights Team, <a href="#">Menu for Change</a> (p.45)</b></p> <p><b>Daphene Altema-Johnson et al., <a href="#">Dietary Changes Among People Practicing Meatless Monday</a></b></p>	<p><b>Santa Ana Unified School District, <a href="#">Santa Ana Unified School District Launches Plant-Based Wednesday Menu Option</a></b></p> <p><i>Promotional Video</i></p>



**A Toolkit for Incorporating  
Plant-Based Protein Measures in  
Municipal Climate Action Plans**

*Equipping municipalities to increase the  
availability of plant-based proteins and engage  
the public on their benefits*

# Key Considerations: Benefits and Challenges

- **Part 2** of the *Toolkit* outlines:
  - Climate benefits
  - Co-benefits
  - Challenges
  - Legal and policy considerations.

# Climate Benefits of Plant-Based Protein Actions

- Producing the average U.S. resident's diet is estimated to generate 2.5 tons of carbon dioxide equivalent annually.
- Most plant-based proteins have a comparatively small carbon footprint, because plants require less in the way of resources and energy to grow, harvest, and distribute.
- For this reason, Project Drawdown concluded that “plant-rich diets” have enormous climate mitigation potential and can “be adopted incrementally with small behavioral changes that together lead to globally significant reductions in greenhouse gas emissions.”

# Co-Benefits (continued)

- *Expanded consumer choice*
  - Expanded food options for different dietary requirements (e.g., lactose intolerance)
- *Environment*
  - Reduced water footprint and water and air pollution
- *Health*
  - Increased adherence to Dietary Guidelines and potential prevention of certain chronic illnesses
- *Resilience and food security*
  - Diversified protein sources and expanded urban agriculture
- *Equity and inclusion*
  - Increased meaningful community involvement and increased food access
- *Animal welfare*
  - Expanded options for those concerned with farm animal welfare

# Potential Challenges

## Considering Drivers of Behavior Change

- Key lessons from the literature
- Awareness campaigns might not suffice
- Consider spillover effects

*Behavioural Insights Team, A Menu for Change: Using behavioural science to promote sustainable diets around the world*

## Estimating Cost

- Action estimates
- Potential for cost savings
- Public perception of Costs
- State and federal funding

## Quantifying GHG Emissions

- Action estimates
- Consumption-based inventories

# Legal and Policy Considerations



- Identification of Governance Tools
  - Voluntary Versus Mandatory Action
- Determination of Scope of Municipal Legal Authority
  - Role of state and federal law
  - Semi-autonomous and quasi-governmental entities
- Compliance with Municipal Procurement Requirements
- Alignment of Actions with Municipal Policies, Programs, and Plans

***Municipal policymakers should consult with municipal legal counsel or other local legal experts on a case-by-case basis.***

# Thank you!



**CONTACT:**



Linda Breggin –  
[breggin@eli.org](mailto:breggin@eli.org)



Sarah Backer –  
[backer@eli.org](mailto:backer@eli.org)