



# **A Summary of Durham Region's Food Security Task Force**

Inspiring Next Steps

An Addendum to the Durham Community Climate Adaptation Plan

## Acknowledgements

This document is the culmination of work completed by Durham Region's 2018-2021 Food Security Task Force ("the task force") and Trent University (Durham and Peterborough campuses).

Additionally, information was gathered through participation at brain storming sessions, a community feedback process with a focus on stakeholders in food access organizations, and the 2014-2016 food security task force contributing to Durham Region's Community Climate Adaptation Plan.

Thanks to each community member, all the students, university professors, Region staff, and volunteers for their contributions to this summary.

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## Introduction

The effects of global climate change are being felt by multiple sectors and on many levels across Durham Region and are expected to continue. In fact, the "warmer, wetter and wilder" weather (DCCAP, 2016) predicted by ensemble model projections for Durham Region poses risks to the region's infrastructure and economy as well as to the health and wellbeing of its residents. This document, **A Summary of Durham Region's Food Security Task Force: Inspiring Next Steps**, is an addendum to the [Durham Community Climate Adaptation Plan](#) and summarizes the work done by the Durham Region Food Security Task Force on the impact of climate change on Durham Region residents' ability to access food. The document summarizes the task force's key documents, their recommendations, and the FSTF's ensuing recommendations for the next steps concerning food security in Durham Region for 2021 and beyond.

## Background

### The Impact of Climate Change on Food Security in Durham Region

It is predicted that Durham Region's weather will become "warmer, wetter, and wilder" (DCCAP, p. 16) characterized by higher temperatures year-round, more extreme heat waves, increases in one-day maximum rainfall especially in the summer, more intense rainstorms, and more risk of tornadoes. This will result in many different impacts on our overall food system that will affect food access for Durham's residents, especially its vulnerable populations. For example, river and urban flooding could amplify the challenges of transportation and distribution of food to vulnerable people. Severe weather can result in disruptions to electricity, the road network and public transit, access to fuel, telecommunications, and the volunteer capacity at food access organizations, which can all impact food access. In addition, food access in parts of Durham Region will be disproportionately impacted by extreme weather events because of a lack of large food retail stores, increased food prices, higher existing rates of food insecurity, and numerous older residential high-rise communities. These Priority Neighbourhoods have been identified by Durham Health as being particularly vulnerable and needing additional attention to health and well-being:

- Downtown Ajax – Ajax
- Downtown Whitby – Whitby
- Lakeview – Oshawa
- Gibb West – Oshawa
- Downtown Oshawa – Oshawa
- Central Park – Oshawa
- Beatrice North – Oshawa

(Durham Region Health Department, 2019)

## Food Security and Food Insecurity

**Household food insecurity** is "the inadequate or insecure access to food because of financial constraints" (Tarasuk and Mitchell, 2020). It is rated as mild, moderate, or severe based on experiences ranging from: worry about running out of food and, having a limited food selection, making compromises in the quality and/or quantity of food, missing meals, reducing food intake, and at the most extreme, not eating for a day or more.

Durham Region Public Health (2019) reports that 14% of households (or 66,100 residents) in Durham Region are food insecure. In Durham, those most likely to be food insecure include: lone parents and people living on social assistance (Ontario Works or Ontario Disability Support Program) or on other fixed incomes such as full-time minimum wage jobs. Several factors contributing to residents being food insecure include: a low income, geographic isolation, sudden household budget changes, and lack of transportation. However, income levels are key. For instance, the average 4-person family receiving Ontario Works has an income of \$2,623 per month<sup>1</sup>. Because \$1,380 of their income is spent on housing and \$861 is spent on food, only \$382 is left for all other expenses (as compared to \$5,742 being left for a 4-person family on a median income in Ontario).

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<sup>1</sup> This includes Ontario Works Basic Allowance and Maximum Shelter Allowance as well as Canada Child Tax Benefit, GST/HST credit, and Ontario Trillium Benefit.

The term **food security** is sometimes used to simply refer to the absence of food insecurity described above. However, the Region of Durham's 2020 Official Plan Consolidation defines food security as "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice, and the ability of the agricultural community to support this system" (p. 160). This perspective emphasizes long-term, systemic, and broad-based approaches to food access. Because the concept of food security is interpreted inconsistently by governments, food system actors, and civil society, it is imperative for any group wanting to make the food supply more secure to agree on a definition for their collective work.

Despite the existing differences, many scholars agree that the achievement of food security also must focus on agency in the form of policies and process along with a combination of approaches (El Bilali, Callenius, Strassner, & Probst, 2019; Mozaffarian, Angell, Lang, & Rivera, 2018).

What are commonly known as the five "A's of food security are often applied in assessing food security, likely because they are measurable indicators that can help to guide policy and practice:

1. Availability – Sufficient supplies of food for all people at all times.
2. Accessibility- Physical and economic access to food at all times.
3. Acceptability - Culturally acceptable, appropriate food and distribution systems.
4. Appropriateness - Nutritional quality and safety. More often now this also encompasses sustainability, although the original ideological concern focused on market forces that would ensure a plentiful supply without concern to sustainability.
5. Agency – The policies and processes to enable or disable actions which ensure the previous four elements of food security. Agency is fundamental to the achievement of food security because of the multisectoral, multijurisdictional, and multi-disciplinary facets of food security. This also emphasizes the need to be conscious of policies and processes in addition to researching and documenting the experience with different approaches.

(Ryerson University, Centre for Studies in Food Security)

Extreme weather events could exacerbate food insecurity because more residents could be pushed into poverty, have a harder time accessing food sources in the community, and not be able to afford food as some food products may become more expensive. Resilience strategies need to ensure that food assistance networks have sufficient capacity to handle increased demand. However, the underlying causes of poverty-based food insecurity require broad public policy interventions to resolve and cannot be fixed by food resilience strategies alone. **Emergency food insecurity** can also arise when residents face limited or uncertain access to adequate food after an extreme weather event or natural disaster because of food supply disruptions and closures of food retail businesses and restaurants. Residents facing poverty-based food insecurity would be disproportionately impacted by emergency food insecurity.

Although food security can be viewed very broadly, to maintain scope, the FSTF primarily considered the need to ensure food availability and accessibility during and immediately after an extreme weather event.

## The Durham Community Climate Adaptation Plan

In response to Durham's climate future, the Regional Municipality of Durham Region (ROD) published the Durham Community Climate Adaptation Plan (DCCAP) which was approved in principle by Regional Council in December, 2016. A review of the development process can be found on pages 18-26 of the [DCCAP](#). The DCCAP identifies seven sectoral areas (buildings, electrical, cross-sectoral, flooding, human health, roads, and the natural environment) which recommended 18 programs that were then referred to all eight local area municipalities, 5 conservation areas, 4 electrical utilities, and other agencies for implementation. An eighth sectoral area, food security, was not able to contribute program recommendations because the timing of meetings meant that there was limited representation from agriculture. From the final DCCAP,

It (was) proposed to convene at an appropriate time of year representatives from the various agricultural commodity groups to develop programs to protect agricultural practices from the effects of changing climate and where possible to benefit from these changes (such as longer growing seasons)  
(DCCAP, 2016, p. 65)

The Plan also recommended developing separate climate adaptation programs to ensure food security and a viable agriculture sector in Durham Region. Stakeholders in agriculture and food security had formed an earlier, initial food security task force that convened from 2014 to 2016. While the food security program ideas that emerged were not included in the final DCCAP, these recommendations for project ideas should still be considered here:

1. Train champions in response activities regarding food security in the event of severe weather event.
2. Create an outreach and education program on food supply, cooking, safety, storage, and supply of food during a severe weather event
3. Inventory of the current Food system capacity of Durham Municipalities
4. Green Rooftops
5. Urban Farming

## The 2018-2021 Food Security Task Force

On February 9, 2018, the Durham Agricultural Advisory Committee (DAAC), Durham Environmental Advisory Committee (DEAC), and the Durham Region Roundtable on Climate Change (DRRCC) hosted the Climate Change and Extreme Weather Symposium, which resulted in the ROD recommending a revised approach to the development of a Food Security Climate Adaptation Program document: forming an Agriculture Task Force and a Food Security Task Force (FSTF). The FSTF work plan was framed with three specific and measurable objectives:

1. To identify concerns and considerations related to food insecurity during extreme weather events related to climate change in the Region of Durham.
2. To identify strategies (i.e., ideas, programs, projects) to mitigate food insecurity among marginalized populations during and in recovery from extreme weather events in the Region of Durham.
3. To "package" these strategies into climate adaptation programs to be recommended for incorporation into a Council endorsed Food Security Emergency Response strategy.

The FSTF work plan originally targeted completion in one year but various circumstances including COVID-19 resulted in delays.

## Food Security Task Force Work To Date:

The Food Security Task Force coordinated various activities in order to assemble a set of recommendations for addressing food security in the face of climate change. Its scope focused primarily on accessibility and availability of food. These activities are described here.

- Literature review regarding food insecurity concerning extreme weather events related to climate change in Durham Region. Completed April, 2018.
- Presentation at the inaugural meeting of task force. Completed April, 2018.
- FSTF brainstorming session to identify climate related food security risks and opportunities. Completed February, 2019.
- Trent University Oshawa **High Level Vulnerability Assessment of Durham Region's Food System** detailed research and analysis of climate change risks to food distribution and access. Completed April, 2019.
- High Level Vulnerability Assessment presented to DRRCC. Completed May, 2019.
- Trent University Peterborough literature review and survey with stakeholders on community food access strategies. Completed February, 2020.
- Presentation to Regional cross-departmental and task force to share results of the Trent High Level Report and Trent Peterborough project. Completed February, 2020.
- A Summary of Durham Region's Food Security Task Force: Inspiring Next Steps An Addendum to the Durham Community Climate Adaptation Plan. Completed February, 2021.

### 2019: High Level Vulnerability Assessment of Durham Region's Food System by Trent University

The Region partnered with Professor Joel Baetz and a group of fourth-year communication students at Trent University Durham Campus to gain deeper insights into the risks that climate change will have on food security in the Durham Region. This project conducted an extensive literature scan including academic research and review of other municipal climate adaptation strategies. Student researchers carried out 30 interviews with major retailers, distribution companies, emergency food suppliers as well as Regional departments overseeing emergency coordination, public transit, and public health. Research was supplemented with reports by the Durham Food Policy Council, the Resilient Cities initiative, and relevant literature related to food security. The project resulted in the document entitled **A High Level Vulnerability Assessment of Durham Region's Food System** which made the following recommendations:

- Raise awareness about the likelihood and severity of extreme weather events;
- Develop and share a common understanding of food system resilience;
- Encourage residents to create their own emergency preparedness plans;
- Investigate ways to strengthen and formalize Durham Region's social networks;
- Investigate current levels of funding, especially for human resources, in the infrastructure sector;
- Map the last mile of food distribution in an emergency;
- Support food access organizations in the development and coordination of their own emergency plans;
- Develop food safety emergency protocols; and
- Investigate ways to make the Durham Region food system more equitable and sustainable.

## 2019: Region of Durham Brainstorming Session

In February 2019, a brainstorming session was held at Region of Durham offices for FSTF members and other Regional Municipality employees. Its goal was to identify concerns and considerations related to food insecurity during extreme weather events related to climate change in the Region of Durham.

Anticipated risks were categorized into food insecurity, urban flooding, urban design, infrastructure, priority neighbourhoods, coordination, and cross-sectorial areas. The following ideas were generated by the participants:

- Develop an emergency food strategy integrated into the Durham Emergency Master Plan;
- Strengthen local (important to define local food) and urban agriculture projects;
- Creation of an emergency food advisors' network
- Prevention of chaos that could occur if food access organizations had to close due to a large-scale weather-related event impacting operations (from safety perspective, lack of human resources, lack of heat/electrical, lack of access to fuel for transportation, lack of refrigeration which would cause food safety issues);
- Education about how to prepare for a weather-related emergency event-kit;
- Urban flooding - vulnerable routes and emergency alternatives;
- Design for urban agriculture opportunities, policy to safeguard urban agriculture community, newcomer agriculture community programs, designing to avoid food deserts;
- Preparing buildings for rooftop gardens;
- Revise DEMOS emergency management;
- Use of backup generators;
- Communication plan to include food in the case of a significant weather event;
- Communications plan, food delivery during and in recovery of emergency, central food hub;
- Support for existing resilience programming;
- Undertake a climate change vulnerability study to identify Durham Region's food security vulnerabilities;
- Community education around emergency food preparedness and extreme weather;
- Policy related to urban agriculture e.g., backyard chickens, urban farms, , small scale processing;
- Community led agriculture;
- Community building through gardening – help the community to become more resilient

## 2020: Trent University Community Based Research- Exploration of community food access strategies

In 2020, a team of students from Trent University Peterborough's Community-Based Natural Resource Management course completed a two-part project:

### Part One:

A literature review was conducted to summarize strategies to reduce food insecurity related to extreme weather events brought on by climate change. It revealed 6 main groupings of strategies:

- Mapping Food Resources- Mapping the food distribution pathways and resources to address current vulnerable areas in the region
- Strengthening Communication- Communicating extreme weather events and resource accessibility to community members
- Creation of Emergency Preparedness Strategies- Educational programs on emergency preparedness delivered to the community
- Reducing Food Deserts- Infrastructure modification and resilience hubs to mitigate the impacts of food deserts
- Increasing Community Resilience and Input- Creation of neighbourhood check-in programs and resilience hubs

### Part Two:

A survey asking local food access organizations 10 questions regarding food security during extreme weather events brought on by climate change. 20 respondents participated from February 23 to March 6, 2020. The students presented their findings to Regional staff stakeholders in March, 2020. The findings include:

- Interest in creating a food distribution plan in the case of a weather-related emergency
- Lack of transparency and communication surrounding existing programs in Durham Region as well as a lack of confidence that organizations will receive enough support in emergencies or in the creation of emergency plans



## Inspiring Next Steps

Food banks and other food assistance organizations are at the centre of addressing food insecurity in Durham. Even though they were created as a temporary measure to help people in need during times of severe financial constraint, they are currently supporting those in need for longer periods of time than intended and being called upon to address food access needs during local community-wide emergencies. This has been demonstrated during COVID-19: as more households became food insecure due to illness and/or loss of income, reliance upon the food access organizations increased. Support from other than the charitable sector should be made available.

Having said this, since March, 2020 up until the time of writing, Feed the Need in Durham (FTND) and its network of 62 organizations (as well as new organizations and existing partners who were not officially part of its network) have been managing a significant and chronic crisis in food insecurity across the entire region. They collectively and significantly increased the amount of food available to the community through emergency programs from about 1.8 million pounds of food annually to over 3 million pounds in the 9 months since March 2020. The number of clients accessing food banks across the region increased by 30% to 6000 individuals a month, while the number of meal program visits increased by 30% as well, significantly increasing the number of people receiving prepared meals from these programs across the community. Through increased development of significant relationships with all of the large food distributors in our community, FTND became the point of contact for local food support from these companies. FTND also became the steward for provincial and federal funds and food resources directed to Durham Region as part of the community's response to the pandemic. This has led to significant investments in Feed the Need in Durham infrastructure and the infrastructure for emergency food response across the community. In planning for responses to a local climate emergency, it will be important to draw on the learnings from this experience. Climate related emergencies will have very different challenges but the ability for food access organizations to be a pillar of support should be recognized for their experience assisting vulnerable populations during and in recovery from weather-related emergencies.

Various municipal departments and provincial government agencies can work with food access initiatives and other organizations in developing partnerships and programs to assist Durham residents, especially in high priority areas, access food during and in recovery from an extreme weather event.

Food insecurity is a systemic vulnerability that will be exacerbated by extreme weather events. Our complex global food system that is entrenched in politics and policies requires diverse approaches to food supply and resilience. Because of the complexity of food security, agency, in the form of policies and processes to enable or disable actions ensuring elements of food security, is fundamental to the achievement of food security.



**Figure 1**

The key components, determinants, factors, and processes of a sustainable diet (Johnston, Fanzo, Cogill, 2014)

As Figure 1 illustrates, a review of food security literature reveals many diverse entry points: agricultural models and productivity, trade and markets, environmental impact, climate change impacts, corporate concentration in the food system, nutrition, human rights, health, agrarian transformation, and social and economic justice. All these factors also interact at many levels and involve different actors with different interests. The FSTF therefore recommends that the Region of Durham incorporate a food-system, specifically a sustainable food-system, approach in any future food-related work. The work of the FSTF can be incorporated as one small component.

## Themes from Proposed Recommendations

Overall, the recommendations above speak primarily to the need to address the following:

**Emergency Response** involves emergency preparedness through community education about how residents, food organizations, and businesses can prepare plans and kits for weather-related emergencies and how residents can help food insecure neighbours during weather-related emergencies; It involves supports like community emergency (food) advisors and plans for food safety during emergencies.

**Communications plans** are vital to ensure residents are apprised of severe weather events, what they should do during them, and what resources are available. They are also necessary for effective food delivery. It is important that communication plans themselves are communicated effectively.

**Vulnerability** includes: assessing the vulnerability of residents across Durham Region to the effects of weather emergencies; maintenance of Social Services' vulnerable persons registry; and the importance of assessing vulnerable routes and emergency alternatives during weather emergencies.

**Building Resilience** involves determining a shared definition of resilience; supporting, protecting, and planning for community-based resilience projects such as community gardens and other urban agriculture projects; addressing food deserts to build up ongoing food access and availability; thereby, promoting and formalizing social support networks.

**Agriculture** is key since the increased likelihood of weather emergencies increases the need for residents to have access to local food. Producers also need improved local food processing. Durham Region needs a Central Distribution Food Hub (Agriculture Commodity Sector) where farmers (rural and/ or urban) could take large quantities of their produce for sale and where retailers, restaurants, and others could purchase bulk local perishable food.

**Distribution and Transportation** includes food delivery plans for weather-related emergencies, mapping the last mile of food distribution in an emergency, and the need for a regional central distribution food hub for agricultural commodities.

**Reporting and communication:** The public need to be encouraged to include food in their emergency plans and to consider how they would access food if they are unable to leave their home or travel due to transit disruptions, road blocks, and/or other likely challenges in the case of an ice storm, flood, etc. Communication with the public and municipalities is needed to help disseminate food security-related information, which could include; how Durham Region will be impacted; items to have on hand (non-perishable food and water for minimum 3 days); that the cost of food may be rising; and that, in the future, food shortages will likely become a norm. This could be done partly through the development of a food system report card. A food access plan should be included within the Durham Emergency Master Plan with an emphasis on leveraging the plan's coordination strengths and capacity to include food access and communications about food availability during weather-related emergencies. Accessible communication targeted to different audiences and literacy levels should be considered.

### **Cultivating Food System Resilience in Durham Region: Ingredients for Success**

As per the task force workplan, upon the dissolution of the task force, a working group will be identified and begin the work of implementing task force recommendations. We recommend that the Durham Food Policy Council, an established citizen-based group with a Regionally-endorsed mandate (the Durham Region Food Charter) and the broad focus to work “towards a just and sustainable food system in Durham Region,” be invited to identify and coordinate this working group. The working groups are a part of the Durham Community Climate Adaptation Plan. The working group’s first task would be a review of this summary document which should be considered foundational to informing the next steps. A strategy with an action/project plan to work on recommendations of this document but not solely being defined by those recommendations, is recommended.

The incorporation of sustainable practices will allow the community and food system to become more resilient. The formation of a municipal food working group should utilize community organizing, community capacity-building principles, and generally accepted governance principles to reduce food access vulnerabilities and build food resilience in the future. Ideally, this work would be supported by Regional staff time in some dedicated capacity or at a minimum formalized oversight of the Durham Region Roundtable on Climate Change.

## References

El Bilali, H., Callenius, C., Strassner, C., & Probst, L. (2019). Food and nutrition security and sustainability transitions in food systems. *Food and Energy Security*, 8(2), e00154. <https://doi.org/10.1002/fes3.154>

Johnston, J.L., Fanzo, J.C., & Cogill, B. (2014). Understanding Sustainable Diets: A Descriptive Analysis of the Determinants and Processes That Influence Diets and Their Impact on Health, Food Security, and Environmental Sustainability, *Advances in Nutrition*, 5(4), 418–429, <https://doi.org/10.3945/an.113.005553>

Mozaffarian, D., Angell, S.Y., Lang, T., & Rivera, J.A. (2018) Role of government policy in nutrition—barriers to and opportunities for healthier eating. *BMJ*, 361: k2426. <https://doi.org/10.1136/bmj.k2426>

Region of Durham. (2020). Durham Regional Official Plan Consolidation May 26 2020. <https://www.durham.ca/en/doing-business/resources/Documents/PlanningandDevelopment/Official-Plan/2020-Durham-Regional-Official-Plan-Consolidation---Revised-1.pdf>

Region of Durham. (2016). Towards Resilience: Durham Community Climate Adaptation Plan 2016. [https://www.durham.ca/en/living-here/resources/Documents/EnvironmentalStability/DCCAP\\_Print.pdf](https://www.durham.ca/en/living-here/resources/Documents/EnvironmentalStability/DCCAP_Print.pdf)

Region of Durham Health Department. (2019). Durham Region Health Neighbourhoods: Making Children the Priority: Early Childhood Development in Priority Neighbourhoods. <https://www.durham.ca/en/health-and-wellness/resources/Documents/HealthInformationServices/HealthNeighbourhoods/PriorityNeighbourhoodsReportEarlyChildhood.pdf>

Region of Durham Health Department. (2019). The Price of Eating Well in Durham Region 2019. <https://www.durham.ca/en/health-and-wellness/resources/Documents/HealthyLiving/PriceOfEatingWellInDurham.pdf>

Ryerson University, Centre for Studies in Food Security (2020). The 5 A's of Food Security. <https://www.ryerson.ca/foodsecurity/>

Tarasuk V, Mitchell A. (2020). Household food insecurity in Canada, 2017-18. Toronto: Research to identify policy options to reduce food insecurity. <https://proof.utoronto.ca/resources/proof-annual-reports/household-food-insecurity-in-canada-2017-2018/>

Trent (2019). Trent University's Communications and Critical Thinking Program: Capstone Course. A High Level Vulnerability Assessment of Durham Region's Food System.