Examining Food Security in Niagara

Through the Lens of Environment and Climate Impacts

February 2016

A Report prepared by Niagara Connects

to describe the Greening Niagara project

Food Security in Niagara: A Collective Approach

supported by Ontario Trillium Foundation funding

Ontario Trillium Foundation / Fondation Trillium de l'Ontario

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TABLE OF CONTENTS

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About the Project

Greening Niagara invited community partners to take a collective approach to examining food security in Niagara, through the lens of environment and climate impacts. A November, 2015 forum and follow-up focus groups were held. Over 80 people participated. They expressed a desire to advance the conversation, with an emphasis on education and knowledge-sharing.

How We Did It

- 80 people attended a November 2015 forum: The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts
- Five follow - up focus groups identified opportunities for action in the areas of collaboration; education; building food production capacity; valuing farms and farmers
- Niagara Connects provided community engagement and knowledge exchange support

Suggested Action Steps

- Engage people in gathering additional information to support action planning for an urban agriculture centre in Niagara.
- Continue to connect this work with the overall work to advance a common vision for Food Systems in Niagara, facilitated by Niagara Connects.
- Support efforts to gather additional data to describe food systems and food security in Niagara, and engage a broad range of participants to strengthen action planning.
- Acknowledge and continue to support the value in the process of diverse players working and learning together to strengthen food security in Niagara.

What It All Means

There is interest, motivation, and a will to advance food security work in Niagara. This project contributed to overall work being done to understand Food Systems in the Niagara context. Access to enough (adequate) local, sustainable, healthy food is at the center of food security. Preliminary data and engagement required to begin development of an urban agriculture centre concept for Niagara have been identified. The full project report is available at: niagaraknowledgeexchange.com

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A report prepared by Niagara Connects for Greening Niagara with funding support from the Ontario Trillium Foundation

February, 2016

Introduction

In 2015, Greening Niagara invited community partners to take a collective approach to examining food security in Niagara, through the lens of environment and climate impacts.

Opportunities and challenges for the future of growing food in Niagara were examined, including heat and drought effects, how people growing food are adapting to change, and urban agriculture models that are working in Ontario and beyond. This examination informed conversations to begin defining information and actions required to strengthen the future of food security in Niagara.

Food Security and Poverty Reduction was identified as one of 12 Food Systems Categories in the 2014 report: ***Niagara Food Systems: Who is Doing What in Food Systems in Niagara and Beyond.*** *"Food Systems"* refers to a complex topic that represents the cycles of growing, distributing, eating and recycling of food. The report called for gathering more detail about groups, organizations, reports, programs, initiatives, events, legislation, leaders, and social media connections. Niagara Connects prepared the report on behalf of Healthy Living Niagara, with funding support from the Government of Ontario.
http://www.niagaraknowledgeexchange.com/wp-content/uploads/sites/2/2015/04/2014-12-31_Niagara-Food-Systems-Who_Is_Doing_What_in_Niagara_-Beyond_FINAL-FINAL2.pdf

The 2014 report highlights that food security encompasses the entire Food System. That is, food security is broader than issues of hunger and lack of sufficient food. Health, nutrition, poverty, transportation, agriculture, and the environment are all components. Factors around acquiring and utilizing food are central to achieving Individual and Family Food Security. At a broader level, Community Food Security can be defined as: *"a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice."* (*Source: Hamm & Bellows, 2003*)

In follow-up to the 2014 report, Niagara Connects gathered additional data to advance understanding of Food Systems in the Niagara context. A core group of leaders across the twelve (12) Food Systems Categories helped to build network maps for the purpose of

visualizing connections between diverse people and organizations in Niagara working in Food Systems.

This led to recognition that information on food security being gathered by Greening Niagara could help to inform the overall examination of Food Systems in Niagara. Thus, Niagara Connects worked with Greening Niagara to support community engagement and knowledge exchange aspects of the project documented in this report. Other partners supported the project; Goodwill Niagara provided meeting space for focus group sessions, and the Ontario Trillium Foundation provided funding.

On November 12, 2015, Greening Niagara hosted an event: *The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts.* Eighty (80) individuals of various backgrounds and interests gathered to learn about, describe, and contribute to the future of food security in Niagara. Presentations included opportunities to learn about food security perspectives including: farmers, agriculture, and climate implications; the environment; a Community Food Centre model; and innovative urban agriculture models from around the world. Roundtable discussions focused on opportunities and challenges for the future of food security in Niagara. Ideas were also shared on how food security relates to the twelve *Living in Niagara* sectors, further enriching participant contributions.

Ideas about opportunities to strengthen food security in Niagara emerged, in the following order, from discussions at the November 12th event:

1. Collaboration and Working Together
2. Education – at all levels
3. Building Capacity, including land use planning and agri-food innovations
4. Valuing and supporting farms and farmers of all types

These four themes guided and were reinforced by follow-up focus group sessions led by Greening Niagara. Five sessions, including participation by a total of twenty-five (25) individuals, were held in St. Catharines on the following dates: November 28 and December 1, 2015; and January 14, 2016. The purpose was to seek input, share ideas and brainstorm solutions.

Key themes emerged from these focus group discussions:

- Education was the strongest theme, discussed across all topic areas.
    - Engage people of all ages and areas of interest, with a particular focus on school partnerships and curriculum.
    - Span various aspects of food security, including nutrition and health; food skills and literacy; home gardening skills; biodiversity, water and soils; and school gardens.

- Building and supporting food production capacity.
    - Creating opportunities and innovations.
    - Respecting traditional growing methods.
    - Protecting soil and water resources.
    - Urban agriculture including front and back yard gardens; greenhouses; school gardens; living rooftops; vertical growing; community gardens and restoring brownfields.

- The importance of acknowledging climate impacts as a key part of Food Security
    - Climate impacts' threat to food security in Niagara was a prevalent concern raised.

What is required to advance Food Security work in Niagara:

- **Overall vision** - that all players can work toward.

- **Relevant, reliable data and information** – gather and share knowledge; map resources andassets.

- **Support for solutions and innovations to become reality** – engage leaders, decision-makers, and funders to inform policies, planning, and resource allocation.

- **Collaboration** - developing common language; respectful discussion; shared learning; and balancing passion and belief with relevant, reliable evidence.

- **Learning from the past** - in terms of growing and preserving food; eating behaviours; food skills; caring for soil; and conserving water.

  Learning from others - creating a space to engage and gather people, in order to pay attention to local and global best practice, and support action and innovation.

Creation of an urban farming centre with an education focus was envisioned, as a means to help strengthen community capacity for food security. Such a centre could build on successful models already established in other jurisdictions, incorporating student intern positions and creation of local employment through urban farming methods.

The work of the *Food Security: A Collective Approach* project led by Greening Niagara served as one step in expanding knowledge and understanding about food security in the Niagara context. Participants engaged in collaborative conversations that could help to inform common goals and combined vision for food security in Niagara.

Food Security

Food Security is a broad-scope topic which includes components of both household food security and community food security. Describing food security in the Niagara context requires a review of relevant data and research from Niagara and beyond. Achieving food security requires conversations and initiatives to address:

1. Climate and ecological health;
2. Agriculture;
3. Poverty; and
4. Access.

Food Security and Poverty Reduction was identified as one of 12 Food Systems Categories in the 2014 report: ***Niagara Food Systems: Who is Doing what in Food Systems in Niagara and Beyond*.** The document includes a comprehensive review of programs and reports related to this topic. Niagara Connects prepared the report on behalf of Healthy Living Niagara, with funding support from the Government of Ontario. (http://www.niagaraknowledgeexchange.com/wp-content/uploads/sites/2/2015/04/2014-12-31_Niagara-Food-Systems-Who_Is_Doing_What_in_Niagara_-Beyond_FINAL-FINAL2.pdf)

The 2014 report called for gathering more detail about groups, organizations, reports, programs, initiatives, events, legislation, leaders, and social media connections.

"Food Systems" refers to a complex topic that represents the cycles of growing, distributing, eating and recycling of food. Food Security encompasses the entire Food System. Health, nutrition, poverty, transportation, agriculture, and the environment are all components.

Several definitions exist for the term 'food security'. One such definition is:

> *"a situation in which all community residents can obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice."*

(Hamm, M, Bellows, A (2003). Community Food Security: Background and Future Directions. J Nutr Educ Behav 35(1): 37-43)

Looking across various definitions and descriptions of food security, it becomes clear that food security is about many things – all linked to how we grow, eat and share food. Food security is about:

- The right to food;
- Access to: adequate food; affordable food; an available and reliable supply of food; and food that is nutritious, safe and culturally-acceptable;
- Physical and economic access to food;
- The reduction of poverty;
- Growing food, farming and agriculture;

- Ecological health - food produced in environmentally sustainable ways, with awareness of biodiversity, soil health, water conservation, and climate impacts;
- Food skills and agri-food literacy;
- The economy; and
- Policies and processes that enable the achievement of food security.

There are different levels of food security. Individual and household food security reflects the level of food security at our own kitchen tables. Also relevant is consideration of community food security: food security in our communities, neighbourhoods, and municipalities.

Food security can be affected by various factors. This includes but is not limited to variations in the environment, climate impacts, urban development, natural disasters, poverty, changing economic prosperity of an area, physical and mental health, and education.

Food security is essentially a matter of access to food. The route to that access may be a dependable source of income or it may be the ability to acquire food through production. (http://www.agr.gc.ca/misb/fsec-seca/pdf/action_e.pdf)

Food security includes issues of the economy, agriculture, health, social equity, and the environment. Through the work of the project described in this report, we learned that while we were looking at food security through the lens of environment and climate implications, related elements also came into focus.

The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts (November 12, 2015 Event)

On November 12, 2015, Greening Niagara hosted an event at the Balls Falls Conservation Area in Jordan, Ontario entitled *The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts.* Funding support was provided by the Ontario Trillium Foundation. Niagara Connects provided community engagement and knowledge transfer support. This event gathered 80 individuals of various backgrounds and interests to learn about, describe, and contribute to the future of food security in Niagara. Presentations included opportunities to learn about farmers and climate implications, production agriculture, the environment, a Community Food Centre model and innovative models from around the world in addressing food security. Roundtable discussions provided a forum to discuss opportunities and challenges for the future of food security in Niagara. Participants also had an opportunity to share their ideas on how food security relates to the twelve *Living in Niagara* Sectors, which align with the Social Indicators of Health, further enriching the contributions from participants. (www.livinginniagararegion.com)

Findings: Roundtable Discussions

Participants were asked to share both their individual responses and group discussion responses to five questions. Thirty-nine individual responses and nine table copy responses were collected and analyzed. Comments posted on the twelve *Living in Niagara* Sector posters were consistent with the themes identified in the roundtable responses and discussions.

Figure 1.0 Word cloud of responses to what food security means in the Niagara context

What does food security mean?

When asked what food security means in the Niagara context, responses reflected a broad food systems understanding of food security. Figure 1.0 represents the most common words from the analysis of the data from this question. "Food" is not surprisingly the most common thread in the data. Responses related to access, food production, self-sufficiency and self-reliance, healthy food, sustainability, local food, distribution, skills and education were the most common themes identified.

A look at the word cloud reveals that access to enough (adequate) local, sustainable, and healthy food in Niagara is at the centre of food security.

Opportunities - Participants were asked to record and discuss the top three opportunities to strengthen food security in Niagara.

While the responses were quite variable and broad in scope, four key themes emerged in the following order:

① Collaboration and Working Together
② Education – at all levels
③ Building Capacity to Produce Food, including land use planning, urban agriculture and agri-food innovation
④ Valuing and supporting farms and farmers of all types

- **Collaboration and Working Together -** There was recognition of the collective will and interest to address food security and the benefit in engaging leaders in food to grow stronger and more diverse connections. Pooling resources, expertise and leadership was considered to be beneficial.

- **Education –** Education at all levels and about all aspects related to food security were highlighted. This included educating children, youth and adults. Education on nutrition, food literacy and food skills, and agri-food literacy were all highlighted as being opportunities to strengthen food security in Niagara.

- **Building Capacity to Produce Food** – Building production capacity through growing Niagara's agriculture sector, urban agriculture and agri-food innovation were all identified as opportunities. Land use planning that preserves agricultural lands and provides opportunities for urban agriculture was seen to be of benefit.

- **Valuing and supporting farms and farmers** - Supporting farmers and farms of all types and of all sizes was recognized as being important. Ensuring that farming is profitable and keeping farmers interested and capable of farming was identified as being essential for a growing and thriving agricultural sector in Niagara. Promotion and distribution of local food and education about food were also seen as opportunities. Recognizing and valuing the experience and expertise of farmers was identified.

In addition to the above, the following opportunities were identified:
- Celebrating and recognizing Niagara's strengths, resources, and assets, from its unique growing environment and production capacity to its existing leadership, programs and initiatives addressing food security.
- Opportunities to build processing capacity in Niagara.
- Opportunities related to aspects of ecological health including water, soil, and biodiversity.
- Opportunities for improved access to and distribution of affordable food.

Barriers - Participants were also asked to record and discuss the top three barriers to achieving food security in Niagara. Responses were variable and broad in scope. Five key themes emerged in the following order:

① Getting in the way of ourselves – stakeholders' perceptions, attitudes, assumptions and relationships
② Governance – regulations and structure
③ Perception, attitudes, and support of the general public
④ Consequences of urban sprawl and access to production land
⑤ Lack of education or gaps in education

- **Getting in the way of ourselves –** This refers to stakeholder relationships and the perception that they are disconnected. Competition for funding, competing priorities, attitudes, perceptions and assumptions were identified as reasons for disconnection.

- **Governance –** Barriers related to governance such as regulations, policies, and political will were identified. The regional/municipal structure of Niagara in terms of decision-making and keeping pace with the way evidence is reflected in resource allocation was also highlighted as a barrier.

- **Perception, attitudes, and support of the general public -** This barrier refers to public perceptions, attitudes, and behaviours (e.g. food should be cheap, convenience food mentality, and lack of food and agri-food literacy skills) and the lack of support for local farmers (e.g. through their food purchasing choices). It represents a lack of connection to the food we eat.

- **The consequences of urban sprawl and access to production land –** The cost of land in Niagara, urban development, loss of farming (particularly tender fruit) and processing, and the loss of biodiversity were identified as barriers in achieving food security and agricultural growth in Niagara.

- **Lack of education or gaps in education** – A lack in education identified as a lack of knowledge, lack of food skills, and lack of intergenerational skills/ knowledge exchange was discussed as an important barrier to achieving food security. A lack of understanding of ecological health including soil, water, climate change, and biodiversity was also identified.

In addition to the above, the following barriers were identified:
- Money - related to inadequate funding for organizations to address food security; inadequate incomes to access food; and farming that is not profitable or does not provide sufficient income for farmers and farm workers.
- Physical access to food, particularly related to transportation.
- Access to affordable food.
- Distribution of food, particularly locally grown food.
- Implications related to the globalization of food and trade agreements.

Participants were also asked to identify people or organizations not present at the event and who would be interested in this type of work. Forty (40) individuals or organizations were identified as being important to bring in to discussions. The most common response was teachers/educators, followed by the senior population, First Nations, and green energy organizations.

Several topics for future dialogue were identified by the participants. The most common response related to food production with suggestions related to urban agriculture, community gardens and agri-food innovations. Several responses expressed interest in dialogue related to the process of advancing collaborative food security efforts. Interest was also expressed in relation to local food, soil health, and seed preservation/ownership.

The themes generated from the discussion and data collected at *The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts* session provided valuable context to inform the Food Security Category of the Food Systems in Niagara work. Momentum and follow up was achieved through a series of focus groups organized and hosted by Greening Niagara (detailed on the following pages).

Participants at the November 12, 2015 event held at Balls Falls conservation area in Jordan, Ontario: *The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts.*

Food Security: A Collective Approach (December 2015 Focus Groups)

Greening Niagara hosted three focus groups in December, 2015 in follow up to the event *The Future of Food Security in Niagara: Through the Lens of Environment and Climate Impacts* held on November 12, 2015. These focus groups were held on November 28, 2015 and December 1, 2015. The purpose of these focus groups was to seek input, share ideas and brainstorm solutions about food security, particularly how it relates to the environment and health; education; and economic development.

The first two focus groups used an open space process in which participants were asked to brainstorm topics from the key opportunity themes generated at the November 12th event - Collaboration and Working Together; Education – at all levels; Building Production Capacity; and Valuing and Supporting Farms and Farmers of all types. These topics were then discussed in small groups and the discussions scribed. Over the two sessions, a total of 21 discussions occurred with topics ranging from common language, urban/rural school partnerships, GMOs and seed ownership, climate education, biodiversity, plant-based diet, water, and collaborations with Brock University students (full list detailed in Figure 1). The third focus group was an open discussion with all participants focused on the topic of food security and economic development.

A total of 19 individuals attended and participated in the December focus groups, including 2 staff people each from Greening Niagara and Niagara Connects. There were 14 participants in the first session, 9 in the second session and 10 in the third session. As collaboration on the topic of food security advances in Niagara, it is expected that additional diverse partners will bring their ideas to the table.

Focus Group 1 – Environment, Education and Food Security		
Great Partners / Working Together	Collaboration between Brock & Niagara College Students	Common Language
Water Resources	Plant-Based Diets in Health Systems	Education on Several Fronts
Biodiversity	Seeds/Clean Food and Health (Building Capacity)	Policy - Bringing Issues to Politicians
Focus Group 3 – Economic Development and Food Security (open discussion)		

Focus Group 2 – Food Security and Education		
Curriculum and Teacher Training	Urban / Rural School Partnerships	Food Skills Programs
Food Security / Climate Change Education	Soils Education	Seedy Saturdays / Garden Clubs / Library Talks
Geoengineering / Chemtrails / GMOs / Seed Ownership	Growing in the Community	Policy and School Board Level
Seed Education	Climate Education for Farmers	Pollinators and Biodiversity

Figure 2.0 – December, 2015 Focus Group Open Space Discussion Topics

Key Themes:

The three focus groups provided a valuable opportunity for further discussion in many aspects of food security. The facilitated process allowed the discussion of multiple topics and engaged the interests of all focus group participants.

The following key themes were generated from the discussions. It is important to note that the findings from the focus groups reinforced and supported the findings and discussions of the November 12, 2015 event, *The Future of Food Security in Niagara: Through the Lens of Environmental and Climate Implications.*

Education

Education was the strongest theme and was discussed in almost all topic areas.

- **Education targeted to all** – Participants felt it is important that education be targeted to all different audiences including children, youth, the general public, farmers, politicians, etc. Education for children was identified as particularly important and the role of schools, school partnerships and curriculum were all discussed.
- **Education about everything food security** – Participants discussed education needs for various aspects of food security. This included nutrition education (e.g. what foods make us healthy), food literacy (e.g. food skills, improving understanding of our connection to food and how it grows), changing public perceptions (e.g. about what produce should look like), food security education, local food education, food production education (e.g. seeds, biodiversity, pollinators, farming practices), home gardening education, urban agriculture education, climate change education, water education, soil education, seed education, and in-school education (e.g. getting home economics back into the curriculum, school gardens).
- **Who does the education is important** – There was discussion regarding the need to have the right people talking to the right audience and that wording needs to be tailored to the audience. The benefit of having peer educators was also discussed. Benefits of intergenerational and multicultural learning were mentioned.

Building and Supporting Food Production Capacity

Building and supporting Niagara's food production capacity was also discussed in almost all topic areas. This included building Niagara's production capacity, creating opportunities, and fostering innovations. Creating a food system that respects traditional growing methods and protects our resources such as biodiversity, soil, and water was considered desirable. Discussions about changes to production practices as well as incorporating urban agriculture were prevalent.

- **Urban Agriculture** – Participants felt that urban agriculture opportunities are key to achieving food security. Discussion included but was not limited to front yard and back yard gardens, greenhouses, school gardens, living rooftops, vertical growing, community gardens, and utilization of brownfields.

- **Ecological Health** – The importance of understanding and appreciating the challenges and opportunities related to aspects of ecological health including water, soil, and biodiversity were discussed. It was felt that additional research and knowledge in this area would be valuable.
- **Understanding Topics Playing Out in Popular Media** – Topics such as biodiversity, seeds, GMOs, and pollinators were discussed, as well as their possible relationship to Niagara's ecological health, physical health, sustainability of the food system, soil quality, and water quality.

Acknowledging Climate Impacts as a Key Part of Food Security

The climate lens was prevalent in the focus groups. Climate impacts are a real threat to food security and participants communicated a strong desire to acknowledge this link. There was an expressed desire to both acknowledge that climate change implications exist and to appreciate urgency.

What is Required to Advance Food Security Work in Niagara

Several key themes were generated from the discussions that can help provide insight and direction in advancing food security and food systems action and work in Niagara.

- **Overall vision –** The desire to articulate an overall vision that all players can work toward was discussed and highlighted as being a priority. This will help to advance discussions about what we are securing.
- **Relevant, reliable data and information** – The requirement for additional data and data-sharing mechanisms was discussed in several contexts. Participants felt it i essential that research and data be research-based, credible, and accepted by its audience. Sharing data and knowledge was also viewed as important. Since having the information is different than knowing it, there was an expressed desire to have an avenue for making the available data known. Mapping resources (e.g. community kitchen locations, local produce stands) and assets (e.g. what is being grown; where there are abundances) was viewed as being beneficial.
- **Support for solutions to become reality** – Participants also expressed a desire for policies, support, and resource allocation to help ideas, solutions and innovations to become reality. This included overcoming governance barriers. Examples included review and update of items such as Canada's Food Guide, trade agreements, local labelling, and school board policies. Opportunities to plan for urban gardens in municipal/regional plans, and allowing for water conservation were also discussed.
- **Collaboration** - Although not discussed in detail, there was acknowledgement and acceptance that collaboration is required to advance food security work. Ideas of what can contribute to successful collaborations were shared, including development of common language; meeting regularly and frequently; respectful discussion; a need to balance passion with the facts; being inclusive; improved public consultations; and

commitment to be able to work through the messy parts. A model where all voices can be heard is required.

- **Learning from the past** – Participants discussed benefit in learning from the past and incorporating these things into our current production methods and eating behaviours. Discussions included water, soil, production methods, eating habits, food skills, food preservation skills and gardening.
- **Learning from others –** Paying attention to what is happening in other parts of the country and in other parts of the world was discussed as an important way to advance food security action and innovation.

Information gathered from these small-group discussions helps to advance overall understanding of what food security means in the Niagara context. While drawing from a relatively low number of participants and scope of perspectives, these focus groups provided:

- Rich data and ideas that can stimulate action and further discussions, and
- An example of a valuable process that could be used to collect further data.

Food Security: Cultivating New Approaches (January 2016 Focus Groups)

Two focus group sessions facilitated by Greening Niagara were held in St. Catharines, on January 14, 2016. A total of fifteen (15) participants shared their thinking about ways to promote food security in Niagara in relation to the environment and climate impacts. Discussions focused on urban agriculture, education and the environment, water, soil, biodiversity and climate impacts.

Examination of assets and opportunities for action led to a conversation about the opportunity to create an urban agriculture education centre in Niagara. Benefits of such a centre were discussed, and aspects of several models from which Niagara could learn were cited.

The Local Community Food Centre (CFC) in Stratford was profiled at the November 12, 2015 event, *The Future of Food Security in Niagara: Through the Lens of Environmental and Climate Implications*. The Local is a partner site of Community Food Centres Canada, a national organization driving development of CFCs across the country. Affiliated with The Table Community Food Centre in Perth, Ontario and Toronto's The Stop Community Food Centre, The Local is helping to increase access for healthy food to low-income Canadians while proving that food can be a transformative force in our communities. (http://thelocalcfc.org/)

> *Community Food Centres take the approach of striving to meet the most basic food needs of low-income residents while combating diet-related illness, reducing social isolation, and supporting local agriculture. A Community Food Centre (CFC) is a welcoming space where people come together to grow, cook, share and advocate for good food.*
> *CFCs provide people with emergency access to high-quality food in a dignified setting that doesn't compromise their self-worth. People learn cooking and gardening skills, and children get their hands dirty in the garden and kitchen in ways that expand their taste buds and help them make healthier food choices. Community members find their voices on the issues that matter to them, and people find friends and support. CFCs offer multifaceted, integrated and responsive programming in a shared space where food builds health, hope, skills and community.* (http://cfccanada.ca/)

Evergreen Brick Works in Toronto is described as Canada's first large-scale community environmental centre that equips and inspires visitors to live, work, and play more sustainably. The centre offers opportunities for people to engage in a broad suite of hands-on environmental programming. (http://www.evergreen.ca/get-involved/evergreen-brick-works/)

Everdale was established in 1998, with the vision that practical learning and hands-on experience are the keys to forging a future where agriculture works sustainably with our local environment. With Black Creek and Hillsburgh, Ontario locations, Everdale's facilities and programs are designed to educate people about farm and food issues while fostering connections between farmers, consumers, and the environment. everdale.org/

Themes That Emerged

A number of observations emerged from the January, 2016 sessions centering around opportunities in two main areas:

Shared Learning and Education

- Food education begins with children.
- An opportunity exists to strengthen food security in Niagara by further exploring an urban farm model that provides hands-on intergenerational education.
- Increased collaboration between environmental organizations, poverty reduction groups, schools, and farmers will be an important aspect of food security action for Niagara.
- An opportunity exists, at all levels in Niagara, to gain more comprehensive understanding of ecological health (water, soil, air, wind, biodiversity, etc.) and its interconnectedness with food security.
- Efforts to strengthen food security in Niagara would be advanced by increasing personal and collective knowledge about:
    - Techniques and technologies used by farmers to produce food;
    - The effects of climate impacts on Niagara's food systems and related risks for food security;
    - Ways for citizens, farmers, the business community, and all levels of government to prepare for floods, droughts, higher winds, and other changes within their ecosystem brought about by a warming planet; and
    - Ways policy can be developed to help both farmers and the environment simultaneously.

Supporting Urban Agriculture

- In order for sustainable food security to be achieved, urban space in Niagara could be used in a more eco-effective manner; urban gardens and farms, and living roofs and walls are examples of such use.
- An opportunity exists in Niagara to emphasize the important role of pollinators in educational programming and when designing urban farms and spaces.
- Incorporating principles of permaculture and biophillic design (connecting building occupants more closely to nature) into community building and urban design would enhance connections to the environment for people in Niagara.
- Manicured lawns could be re-purposed as hubs of biodiversity and food gardens.
- Acknowledge and support the concept that biodiversity inspires creativity, ecological health, and helps to improve our quality of life.

Conclusion and Next Steps

Achieving food security requires both processes and actions that address climate and ecological health, poverty reduction, agriculture, and access to food. The work of the project profiled in this report engaged over 80 individuals in Niagara in providing their thinking about what food security means in the Niagara context; how it relates to environment and climate impacts; and what opportunities exist to strengthen food security by looking through the environment and climate lenses.

This report and the findings of the November, 2015 event, focus group and action-planning sessions hosted by Greening Niagara:

1) Demonstrate and reinforce that there is interest, motivation and a will to advance food security work in relation to environment and climate impacts in Niagara.
2) Contribute to the overall work being done to understand food security and food systems in the Niagara context.
3) Provide an example of a process that can be used to engage people, collect data, and inspire action.
4) Provide preliminary data and engagement of individuals required to begin development of an urban agriculture centre concept for Niagara.

Next Steps

- Engage people in gathering additional information to support action planning for an urban agriculture centre in Niagara.

- Continue to connect this work with that of the overall work to create a vision for food systems and food security work in Niagara, being facilitated by Niagara Connects.

- Support efforts to gather additional data to describe food systems and food security in the Niagara context, engage a broad range of participants, and include their knowledge to strengthen action planning.

- Acknowledge and support that *the value is in the process* of diverse players working and learning together to strengthen food security in Niagara, within the overall context of Niagara's food systems.