



What is the Food Systems Lab?

The Food Systems Lab is a one-year pilot Social Innovation Lab working on solutions to reduce food waste in the Greater Toronto Area (GTA). Social Innovation Labs are multi-stakeholder platforms created to address complex system challenges. We are bringing together individuals and organizations diverse parts of the food system in the GTA. Our stakeholders include farms, food businesses, Indigenous leaders, consumers, schools, associations, civil society groups, faith organizations, charitable foundations, and local government. We seek to identify promising interventions that will increase the resiliency and sustainability of our food system. To accomplish this goal, the Lab process includes ongoing qualitative and quantitative research such as interviews with stakeholders and experts to harvest current knowledge about food waste, analyzing archival records, and modelling food waste data. The Lab also brings together stakeholders through a series of three workshops to gain a deep understanding of the system, identify and prototype innovations and opportunities that can address root causes of food waste.

About Workshop 1

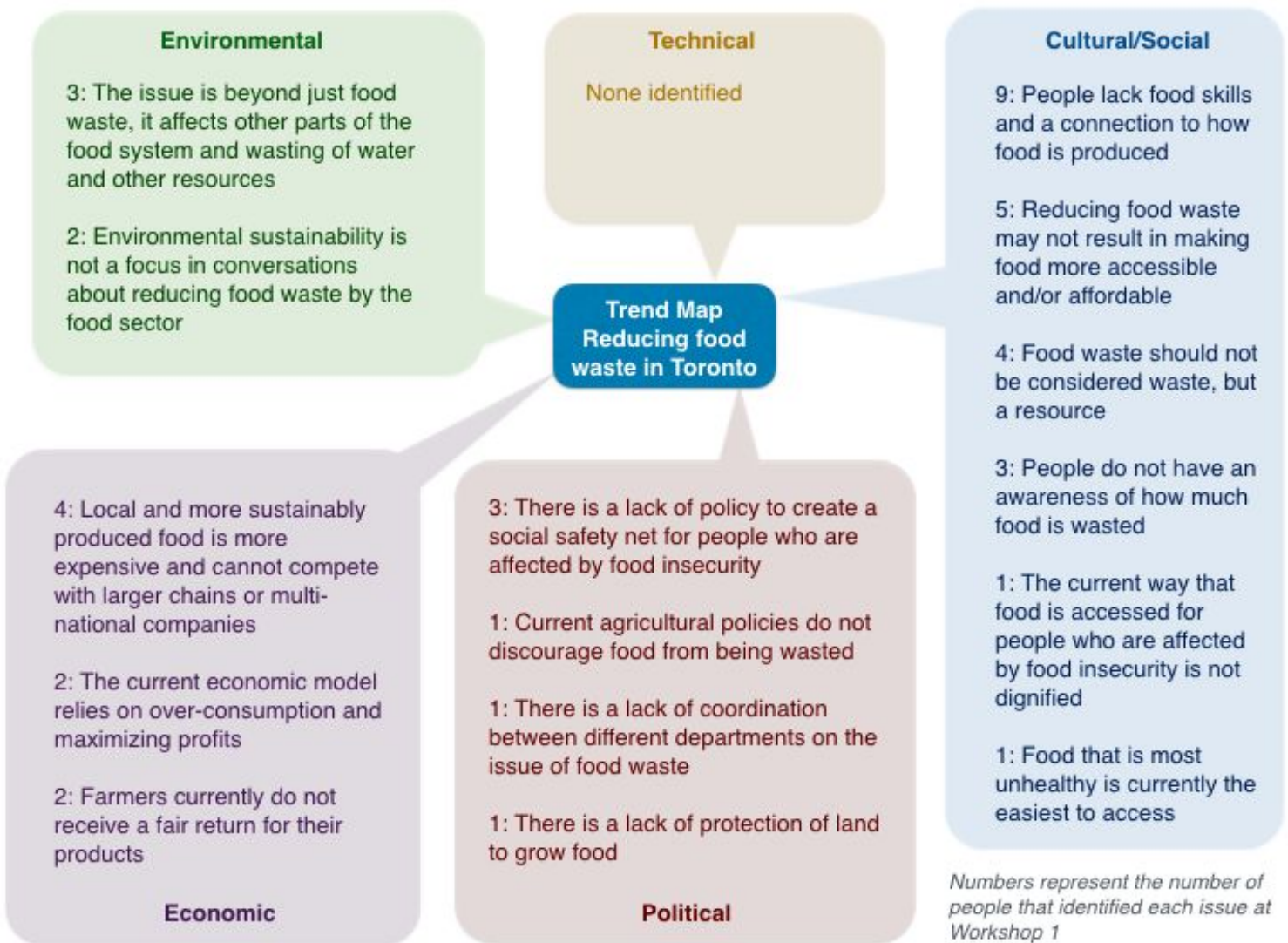
The Lab team conducted three months of research between September 2016 to November 2016 consisting of 47 semi structured key informant interviews, and literature review. Based on this preliminary research findings we developed a [Design Brief](#) to prepare the stakeholders for the first workshop. The goal of Workshop 1 was to gain a broad and deep understanding of the issue of food waste in the GTA and open new possibilities for interpretation. We brought together 30 organizations and individuals representing different parts of the food system for this two-day workshop. We used a variety of whole system thinking tools to uncover assumptions and brought together a diversity of viewpoints. The workshop began with an opening by an indigenous elder to bring Lab participants into a space that values reconciliation and indigenous learning to solve complex problems. Participants then explored issues related to food waste through systems mapping and a timeline exercise to identify historical events that contributed to shifting the food system towards wasting more food. On the second day, participants took a deeper look at the 'horns of the dilemma' of food waste, two equally desirable alternatives that appear to oppose each other and went on a research mission to observe food waste in downtown Toronto. This summary document provides an overview of the outputs of the workshop.

Issues Identification

In the [Design Brief](#) for Workshop 1, the Lab team proposed a convening question for the Lab based on our research leading up to Workshop 1:

How can we reduce food waste while ensuring that food is accessible, affordable, and that we support a vibrant food sector?

Lab participants identified key issues and concerns with this question. The themes from these issues and concerns were placed onto a trend map (see next page). The top issue identified by participants is that people lack food skills and a connection to how food is produced. Other key concerns include the ability for local and more sustainably produced foods to compete in the marketplace, affordability/accessibility of food, and viewing food waste as waste instead of a resource.



The Horns of the Dilemma

One of the main activities of Workshop 1 was identifying the 'horns of the dilemma' of food waste in Toronto. Lab participants were first asked to describe the current system of generating and managing food waste in Toronto. They then described the ideal system. Most of the current system descriptions were defined in a negative sense (e.g. "The definition of success became excess").

Lab participants then identified the positive values of the current system. The statements about the current versus the ideal systems became the 'horns of the dilemma'.

A summary of the "horns of the dilemma" is presented below.

Horns of the Dilemma:

Two equally desirable outcomes that appear to be in opposition to each other. The natural tendency is to define one 'horn' as a positive and the other as negative. The way to stimulate innovation to get through the 'dilemma' between the two horns is to define both horns by their positive value.

How do we...

Produce food efficiently, using the latest industrial technology	while	maintaining traditions, culture, and environmental sustainability?
Have a wide selection of convenient and culturally appropriate food available throughout the year	while	minimizing food miles and ensuring resilience in the local food system for times when food cannot be imported?
Keep food and disposal of waste affordable for everyone	while	compensating food producers and labourers fairly to maintain a living wage?
Maintain high food quality and safety standards	while	maximizing the use of food and food byproducts?
Optimize economies of scale and infrastructure developed for a centralized supply chain	while	supporting locally-owned small and medium enterprises?

How Did We Get Here?



From a combination of lab participant input and background research on global and regional food trends over the past century, key events were charted on a timeline. For a more detailed write-up of the history of food, with a focus on Toronto, please refer to this [blog post](#).

	Beyond Toronto	Toronto
1900	<p>First Food Regime (1870s-1930s) colonial tropical imports sent to Europe from colonies</p> <p>In 1901, women made 13% of the total labour force</p>	<p>City of Toronto officially incorporated in 1834</p> <p>Eaton's retail store established 1869 and sold food</p> <p>Residential schools established (1880s-1996) detaching families, serving poor quality, low quantity food for Indigenous children</p>
1910	<p>First World War; 1917 Victory Gardens under Ministry of Agriculture</p>	<p>In 1914 the City of Toronto was site of the first municipal abattoir</p>
1920	<p>International supermarket A&P expanded to Canada</p>	<p>Backyard gardening and backyard hens encouraged in the City.</p>
1930	<p>The Great Depression (1929-1939)</p>	<p>Toronto Home Economics Association founded 1938</p>
1940	<p>World War II; Creating open markets: International Monetary Fund (Bretton Woods Conference)</p>	<p>A wave of immigration to Toronto from Southern and eastern Europe after 1941 changing the demographics</p>

Seeing the System: Food Waste in Toronto

A Summary of Food Systems Lab Workshop 1

	Beyond Toronto	Toronto
1950	<p>Surplus food from US re-routed as food aid to fight against the Cold War</p> <p>Post- World War II Baby Boom generation</p>	<p>Ontario Food Terminal established (1954)</p> <p>City of Toronto and 12 municipalities federated into Metro Toronto</p>
1960	<p>Increased agricultural production through "Green Revolution" via hybrid seeds, pesticides and synthetic fertilizers</p> <p>Second-wave feminism (1960s-1980s)</p>	<p>Housing revolution, suburbanization and urban sprawl consuming Canada's prime farmland</p> <p>Social housing projects Regent/ Moss/ Alexandra parks</p> <p>Toronto's food came from 350 km of city radius</p>
1970	<p>"Father of Green Revolution" Norman Borlaug won Nobel Peace Prize</p> <p>1971 Frances Moore Lappé "Diet for a small planet"</p>	<p>1971, Toronto's population doubled to two million; Average house prices in 1971 was \$30,426</p>
1980	<p>"Supermarket Revolution"</p> <p>First food bank established in Alberta (1981)</p>	<p>Blue Box (recycling system) established</p> <p>Number of impoverished families in Toronto increased</p>
1990	<p>World Trade Organization established in 1995; 1994 North American Free Trade Agreement</p> <p>1996 Food Sovereignty Movement</p>	<p>Toronto Food Policy Council founded</p> <p>1998 Amalgamation of Toronto</p>
2000	<p>80% of Canada's population reside in urban areas</p>	<p>May 2000, Toronto City Council voted to become a food secure city (Toronto Food Charter)</p> <p>Green bin program began in 2002</p>
2010	<p>Food Waste Report by Value Chain Management Centre food waste at \$27billion, revised to \$31 billion in 2014</p>	<p>According to <i>Household Food Insecurity in Canada</i> (2014) 1 in 8 Toronto households are food insecure</p> <p>2015 Toronto Poverty Reduction Strategy</p>



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What's Next?

In January of 2017, The Food Systems Lab was invited by the Ontario Ministry of the Environment and Climate Change to be a member of the stakeholder working group for the development of a Food and Organic Waste Framework. The Lab will share our findings and showcase the collaborative work done by our stakeholders to promote evidence-based policy making in food waste prevention, reduction and management. The Lab has also been invited to present our findings by the Commission for Environmental Cooperation, a trilateral organization that facilitates collaboration and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations. We are also conducting ongoing research throughout the year, such as follow-up interviews, analyzing newly available data, and modeling scenarios for solutions. Our final report will be shared broadly with our partners, stakeholders and policy makers at all levels of government.

Designing Solutions: Social Innovation Lab Workshop 2

March 1st and March 2nd, 2017

Following the first workshop, the participants in the second lab workshop will apply the systems understanding developed in the first lab and use it to inform the solutions and interventions that will be developed and promoted by the Lab. On March 1st and March 2nd of 2017, we will convene the second lab workshop which will be focused on designing solutions to address the issue of food waste. Social innovation tools and methods will be used to identify emerging patterns, programs, initiatives, ideas that could transform the system. Possible innovations and opportunities will be explored through working groups.

Prototyping: Social Innovation Lab Workshop 3

June 7th and June 8th, 2017

Our third and final lab workshop will harness design thinking tools to prototype possible innovations and opportunities. A rapid iteration process will be used to maximize learning while minimizing the feedback loop. In this lab workshop, we will explore the potential opportunities, and challenges faced by the stakeholders when implementing selected interventions. This pilot social innovation lab will then provide a template for other interested parties who would like to replicate our model for collaborative cross-sectoral policy making in other jurisdictions.

Acknowledgements

Lab Secretariat

Tammara Soma (Project Manager)
Belinda Li (Lead Facilitator)
Dave Kranenburg (Social Innovation Lab Advisor)

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We gratefully acknowledge that Food Systems Lab was held on this sacred land on which the University of Toronto operates. It has been a site of human activity for 15,000 years. This land is the territory of the Huron-Wendat and Petun First Nations, the Seneca, and most recently, the Mississaugas of the Credit River. The territory was the subject of the Dish With One Spoon Wampum Belt Covenant, an agreement between the Iroquois Confederacy and Confederacy of the Ojibwe and allied nations to peaceably share and care for the resources around the Great Lakes.

The meeting place of Toronto is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work in the community, on this territory.

We would also like to thank the following sponsors and partners for supporting our work.

