Rethinking Food Security in the 21st Century

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Contemporary trends, policy and agency

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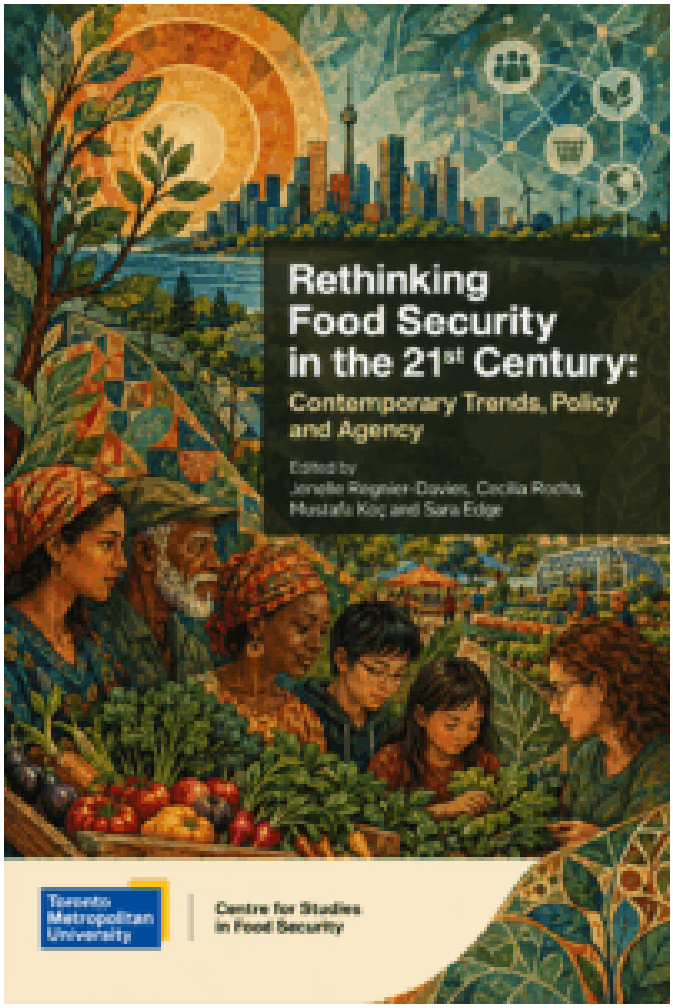

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INTRODUCTIONS

1. Introduction: Celebrating 30 Years of the Centre for Studies in Food Security

MUSTAFA KOÇ; CECILIA ROCHA; SARA EDGE; AND JENELLE REGNIER-DAVIES

Abstract

This introductory chapter celebrates the 30-year legacy of the Centre for Studies in Food Security (CSFS) at Toronto Metropolitan University while situating its contributions within the broader evolution of food security scholarship, policy, and practice in Canada. It traces the Centre's historical emergence in response to growing concerns about hunger, poverty, and food system inequities during the late twentieth century, highlighting the political, economic, and social contexts that shaped its creation. The chapter examines the Centre's interdisciplinary approach to food security, grounded in the development of the 5As framework—availability, accessibility, adequacy, acceptability, and agency—which has informed research, teaching, and policy engagement for three decades. It also reviews the Centre's contributions to advancing scholarship on food justice, food sovereignty, urban food systems, and the structural determinants of food insecurity through collaborative research, innovative educational programming, sustained partnerships with community organizations, governments, and international collaborators, and reflexive practice. The chapter further highlights the Centre's role in establishing enduring institutions, including Food Secure Canada and the Canadian Association for Food Studies, while supporting initiatives such as Indigenous and Black food sovereignty. We also reflect on where research centres and higher education institutions more broadly need to act to move beyond short-term, ad hoc measures and approaches to rectifying injustices, toward more durable and transformative change. Finally, this chapter introduces the other Chapters in this volume that provide a range of perspectives on thinking about food insecurity in the 21st Century, while also serving as reflections of the Centre's reach, multidisciplinary legacy and ongoing commitment to generating knowledge, fostering dialogue, and advancing more just, equitable, and sustainable food systems in Canada and beyond.

Introduction

The idea for this book emerged as part of the celebrations of the 30th anniversary of the Centre for Studies in Food Security (CSFS, or "the Centre"), situated in the global city of Toronto, Canada's largest and most diverse metropolis. The Centre was established in 1995, shortly before the dawn of the 21st century, to address growing concerns about hunger and malnutrition in Canada and worldwide. A project emerging from a collaboration between Jennifer Welsh of the School of Nutrition and Mustafa Koç of the Sociology Department at Ryerson University[1], the Centre quickly attracted other researchers, students, and food activists. Over the years, the Centre has grown its network and impact alongside the unfolding of the first quarter of the 21st Century, an era marked by explosive digital transformation and innovation, unprecedented connectivity and globalization, escalating geopolitical conflict, climate change, a global pandemic, mass migration, polarizing social movements, calls for truth and reconciliation, and ongoing and deepening inequalities.

1. Toronto Metropolitan University (TMU) has officially changed its name three times over the Centre's timeline: 1993–2002: Ryerson Polytechnic University (RPU); 2002–2022: Ryerson University (RU); 2022–Present: Toronto Metropolitan University (TMU)

In this introduction, we describe the historical context in which the Centre emerged (section I), as well as its main contributions to research, education, policy, community action, and dialogue on food security in Canada (section II). We then consider pervasive challenges and ongoing limitations facing research centres, universities, and higher education institutions in promoting equity and justice (section III). The chapters in this volume, introduced in section IV, reflect the breadth of CSFS members' research interests and impacts, as well as the multidisciplinary nature of food security as an object of study. We close this introductory chapter (section V) by reflecting on the Centre's 30-year legacy, the ongoing challenges facing food security, and the collective efforts of those who have contributed to the Centre and our publishing endeavours.

I – Historical Context of the Centre for Studies in Food Security Launch

Food security, as a policy framework adopted by various international organizations, including the Food and Agriculture Organization (FAO), the World Food Programme (WFP), and the United Nations World Health Organization (WHO), helped define the objectives of the new Centre for Studies in Food Security (CSFS), whose members aimed at working towards a just, sustainable, and healthy food system for all. As discussion of food provisioning conditions in modern market economies emerged around the mid-1970s (United Nations, 1975), food security became a key policy objective at the local, national, and global levels, as well as an analytical framework that guided research agendas. As detailed in Chapter 2 in this volume, the concept of food security (or access to sufficient, safe and nutritious food) is complex and evolving with multiple understandings and related priorities.

Rising concerns about global inequalities, demographic pressures, and changing consumption patterns in the developing world have prompted scrutiny of long-term food security. The optimism of the post-WWII period gave way to a new era of free market liberalism in the 1970s. Neoliberal policies resulted in a decline in industrialization and the relocation of industrial production to countries with lax labour and environmental regulations and lower wages. Growing unemployment and cuts to social programs contributed to higher unemployment rates, rising poverty levels, and food insecurity. A recession began to affect the Canadian economy in the late 1970s. Worried about unemployment, declining farm income, and rising food prices, community organizers established the People's Food Commission in 1977. The Commission's final document, The Land of Milk and Money (People's Food Commission, 1980), reflected increasing concerns about the decline of family farming, corporate concentration in the agri-food sector, rising food prices, and structural problems within the food system.

In 1981, Canada's first food bank, the Edmonton Gleaners Association, opened in Edmonton (Edmonton's Food Bank, 2021). The first food bank in Toronto, the Daily Bread Food Bank, began operations in 1983. By 1985, there were 94 food banks across Canada. The Canadian Association of Food Banks (later, Food Banks Canada) was established in 1988 (Riches, 2002). Since then, and despite their intended role as temporary emergency responses, food banks have become a growing presence in the lives of many Canadians. The 2025 HungerCount Report recorded 2,165,776 visits to 2,725 food banks in March 2025 (Food Banks Canada, 2025). Compared with March 2019 figures, food bank visits increased by 99.37%. These reports are revealing, although they may represent only a portion of Canada's food-insecure population.

By 1985, one in six people in Toronto were living in poverty (FoodShare, n.d.), and the crisis was worsening. With the support of Mayor Art Eggleton, FoodShare Toronto was established to donate surplus food to those in need. In 1986, the Toronto Star newspaper quoted MPP Richard Johnston stating, "… hunger in Metro Toronto has reached 'frightening' proportions and is a glaring indictment of Ontario's social assistance programs" (Contenta, 1986, A1). It went on to quote that when Second Harvest (a program aimed at rescuing surplus food and diverting it to those who need it) first started last April, they distributed 1,133 kilograms (2,500 pounds) of food a month. Less than a year later, the group's 40 volunteers distributed 22,675 kilograms (50,000 pounds) of food in February (Contenta, 1986, A1).

In 1987, the Food System Seminar Series was created, bringing together academics from York University, the University of Toronto, and Toronto Metropolitan University (then named Ryerson Polytechnic Institute). The Seminar often hosted researchers from other parts of Canada and the world. As an example, Tim Lang, founder of the London

Food Commission in the UK, visited Toronto to contribute to discussions and actions aimed at addressing food security issues (FoodShare, n.d.). Later, in 1997, Tim Lang would be the keynote speaker at the CSFS International Conference on Sustainable Urban Food Security.

Created by Toronto City Council in 1990, the Toronto Food Policy Council (TFPC) was proposed as a vehicle for "food citizenship" (Welsh & MacRae, 1998). The goals of the TFPC were "to address both social justice and sustainability issues, and to provide a mechanism for 'food democracy' or 'food citizenship', which emerges from people's active participation in shaping the food system, rather than by accepting the system as passive consumers" (Welsh & MacRae, 1998, p. 238). Its first coordinator, Rod MacRae, played a crucial role in highlighting the city's food policy issues. TFPC discussion papers advocated systematic, capacity-building approaches to address food challenges and enhance food security. Jennifer Welsh, from the School of Nutrition at Ryerson University, served as the first Community Co-Chair of TFPC from 1990 to 1992.

The CSFS emerged from this history. It was inspired by the work of the People's Food Commission years earlier, as well as the discussions at the TFPC and at the Food Systems Seminar Series. Its founding members were also driven by a growing concern with the spread of food insecurity in Canada and around the world. Jennifer Welsh was one of its co-founders, and Rod MacRae became one of its first associate members. In the following years, the TFPC and the CSFS collaborated closely, with several other CSFS members also serving on the TFPC. The Centre's long-standing partnerships with researchers, policymakers, and community organizers throughout Toronto, Canada, and worldwide have shaped much of its research and educational activities over the years.

II – CSFS' Main Contributions

Since its inception, the Centre for Studies in Food Security has supported research, professional practice, and community action to enhance food security. Its focus has been on the unique organization and challenges of urban and metropolitan food systems, and on how these systems are interconnected with rural communities, the agricultural sector, and the broader global food system. It has taken a multidisciplinary and systemic approach to the social justice, environmental sustainability, health, and socio-cultural aspects of food security.

Pillars of Food Security: The 5As Approach

One of the key contributions of the CSFS has been developing a unique approach to identifying the essential dimensions of food security, identified as the pillars. Pillars refer to mutually distinct, yet interdependent foundational dimensions that together define a complex concept, such as food security. Based on definitional distinctions and emphases on the essential conditions that constitute food security, different organizations have used different pillars of food security. One of the most common models since 2006 was the four pillars of food security used by FAO (2006). Up until the 2020s, FAO's pillars of food security (availability, access, utilization, and stability) remained the most widely accepted understanding of the concept. **Food access** is the ability of individuals to obtain food for a nutritious diet through their entitlements, the resources and rights (legal, economic, social, and traditional) available to them within their community. **Utilization** means the body's ability to benefit from food, which depends not only on diet quality but on non-food factors such as clean water, sanitation, and healthcare. Finally, **stability** requires that access to adequate food be consistent over time and not be undermined by sudden shocks such as economic crises, climate change or recurring conditions such as seasonal scarcity (FAO, 2006).

While embracing FAO's definition of food security, CSFS adopted a somewhat different approach in identifying the key pillars of food security. The CSFS's 5As approach includes availability, accessibility, adequacy, acceptability, and agency (CSFS, n.d.). CSFS never claimed intellectual ownership of the 5As model and preferred to develop it collectively with its

allies and other researchers (BC Centre for Disease Control, 2022; Chappell, 2018; Council of Canadian Academies, 2014; Garofalo, 2023; Koç, 2025; Piaskoski et al., 2020; Second Harvest, 2025).

According to the CSFS 5As approach, **availability** refers to the need for sufficient, assured, and dependable food supplies within a community or society. It has been the focus of all food security discussions since the post-World War II era. Food availability includes adequate production, storage, and distribution. Historically, ensuring food supply has been challenging due to various natural, societal, and external factors. Natural factors, such as weather conditions and earthquakes, along with social disruptions like wars and financial crises, can undermine a society's ability to maintain sufficient food supplies. Availability is a macro-level concept that ensures food is accessible for a specific region or jurisdiction, not just for a household. Food availability depends on numerous factors, including crop production, livestock farming, fisheries, aquaculture, pollination, and climatic conditions such as rainfall levels. It also considers the availability of other inputs, such as fertilizers, storage capacity, food loss and waste, and internal and international trade flows. Many critiques of the productionist paradigm (Lappé & Lappé, 2002) argue that the main problem in achieving food security is not a lack of food availability but issues of access.

Accessibility: The distribution and access to food are vital aspects of food security. Inequities have caused significant entitlement issues that mirror disparities in class, gender, ethnicity, race, and age, as well as gaps in national and regional development both within and between societies. Even in developed economies, inequalities in food access contribute to food insecurity among marginalized populations. Many observers argue that the main cause of food insecurity in modern society is not a lack of availability but rather the social inequalities that prevent people from accessing "life goods," such as food, housing, education, transportation, and healthcare. Therefore, addressing accessibility requires considering not only the availability of food but also the factors that hinder certain members of society — including women, the working poor, racialized and ethnic minorities, the elderly, and people from specific regions — from obtaining food or forcing some to compromise their diets to afford other essential needs. Famines, wars, and trade embargoes can create availability challenges, but they also limit access for large segments of the population. Even in extreme situations, accessibility is rarely an issue for the privileged.

Acceptability: Food security implies culturally acceptable foods and distribution systems that uphold human dignity while respecting social and cultural norms. As a vital part of human health and well-being, food and foodways embody humanity's rich social and cultural diversity. Although all definitions of food security highlight availability and accessibility, acceptability is a less-recognized cultural and ethical aspect of food security discussions. This element can also be crucial when addressing food assistance, whether through charitable organizations like food banks or international food aid programmes. Numerous studies show that only 25-30 percent of food-insecure people use food banks and often leave certain items on the sidewalk, as they prefer not to consume them, even when hungry (Loopstra & Tarasuk, 2015; Tarasuk et al., 2020). Food security should not be limited to obtaining enough calories; it also requires access to foods that are culturally familiar and acceptable. For Indigenous peoples, barriers to accessing traditional foods have adversely affected their health and well-being (Power, 2008; Neufeld, 2021). Acceptability also presents challenges in institutional diets, such as those in hospitals (Cass & Charlton, 2022), schools (The Lancet Regional Health – Americas, 2022), and prisons (Kushmerick-McCune et al., 2024), where "cheap" food often leads to poor health outcomes and significant waste (Anderson & Um, 2017).

Adequacy: Adequacy refers to a food system that provides nutritious and safe foods to support overall health. Food is a key factor in human health. In this context, food security means not just the availability and accessibility of food, or enough calories, but safe and nutritious options that promote health and wellbeing. Food safety and nutritional quality are among the most important factors in various food policies throughout the 20th century (Lang et al., 2009; Ostry, 2011). Despite this recognition, supermarkets and school food environments are full of highly processed pseudo foods (Monteiro et al., 2025; Scrinis et al., 2025; Winson, 2021). Adequacy also includes the sustainability and resilience of production and distribution systems to ensure long-term food security; protect growers, workers, and eaters from harmful practices; protect biodiversity; and respect nature and all life forms (Rockström et al., 2025; Schneider et al., 2025). Environmental challenges such as climate change, water scarcity, land degradation, and environmental pollution threaten food security (Blay-Palmer & Koç, 2016). Overreliance on fossil fuels is another fragility of the food system, given its environmental consequences and supply chain vulnerabilities. Fossil fuels are used in every segment of the

food chain as fuel for machinery, fertilizers, pesticides, plastic packaging, ultra-processed foods, transportation and processing (International Panel of Experts on Sustainable Food Systems [IPES-Food], 2025).

Agency: The question of structure and agency has been a central focus of sociology. Structures, described as repeating social patterns often defined by established norms, institutions, social and power inequalities, and various ideologies, set the boundaries for the actions of individuals and social actors. Agency refers to the capacity of individuals, groups, or institutions to act independently and influence their social environment through free choices and deliberate actions (Sewell, 1992). Agency is not merely about freedom of speech or choice but also the capacity to act on desired objectives. Agency is about sovereignty. The concept of agency involves creating an enabling environment and removing barriers for people, communities, and countries to choose and set the conditions for a sustainable food system that fosters community self-reliance and social justice. The history and ongoing experiences of colonized peoples around the world illustrate that food security without sovereignty is impossible (Rotz et al., 2024).

Key actors also have the agency to influence the processes, structures, and policies that enable or hinder food security in each region and jurisdiction. The actions of various social and institutional players, including traditional elites, political parties, unions, cooperatives, government bodies, and private ventures, directly or indirectly affect conditions in the food system, shape livelihoods, and determine food sovereignty and security within that social setting.

Figure 1: 5As of Food Security according to the Centre for Studies in Food Security

Figure 1: The five conditions of food security: availability, accessibility, adequacy, acceptability, and agency.

Unique Approach to Food Security

Following its unique contribution to defining pillars of food security, a significant part of the Centre's research involved critically assessing the meanings of terms such as "food security", "food sovereignty", "food democracy", "sustainability", "resilience" and "food justice" as articulated by different agencies and social and political actors. Focusing on the dominant structures, institutions, and practices of the agri-food system, CSFS approaches it as an integrated, interrelated whole, from field to table. It sees the food system as part of the broader societal dynamics, arguing that understanding food systems must involve other natural, social, historical, and economic dynamics, such as housing, transportation, education, finance, health, and the environment. CSFS members have studied the impacts of processes such as immigration, urbanization, industrialization, globalization, commodification, corporate concentration, and economic centralization. The consequences of social inequalities and different entitlements in terms of gender, class, indigeneity, race, ethnicity, and citizenship status have continued to shape a critical inquiry into discourses, policies, and practices of food security.

The CSFS has understood food insecurity as a problem particularly crucial for the most marginalized, most oppressed, and silenced segments of society. The fundamental cause of hunger is deprivation and poverty. In market economies, where food and other essentials of life are treated as commodities, food insecurity often affects those who lack access to land and other means of production. This includes those who cannot find work to support themselves and their families. This includes those who, despite having a job, do not earn enough to access essential services (e.g., housing, energy, transportation, health, education). Those who cannot work for various health reasons or cannot find work due to market conditions. Those who are marginalized because of their Indigeneity, race, gender, ethnicity, or refugee status. Additionally, people without citizenship rights and food sovereignty suffer food insecurity and hunger.

A Hub for Knowledge Production and Dissemination

In addition to research and education, the CSFS has initiated, supported, and promoted many spaces for dialogue and partnerships among academics, civil society, private organizations, and the public sector. In 2002, the Centre proposed a post-baccalaureate certificate, based on the pressing need for education and thoughtful reflection on issues of food security. The Certificate in Food Security (see Chapter 12 in this volume) pioneered education in food security from the perspective of the 5 A's in a food systems approach. Since 2003, the certificate has attracted students from around the world, building a growing international network of food security experts who continue to collaborate and learn from each other. For a very long time, it was the only program of its kind in North America and the only online program of its kind in the world. The Certificate helped pioneer both course content and delivery, transforming and accelerating research and knowledge in food security studies.

The Centre has hosted several national and international meetings, and engaged with food security initiatives at local, regional and global levels. Some key meetings hosted by the CSFS include: the International Conference on Sustainable Urban Food Systems in 1997 (Koç et al., 1999); Working Together Conference: Civil Society Input for Food Security in Canada in 2001 (Koç & MacRae, 2001); International Development Research Centre (IDRC) and CSFS Workshops on Urban Agriculture in 2004; Encounter in Food Security: Canada, Brazil, Angola in 2006; and the international conference Feeding Cities: Rural-Urban Connections and the Future of Family Farming in 2014.

In the late 1990s and early 2000s, the CSFS managed mailing lists for groups such as the Toronto Food Research Network, the Canadian Food Security Network, and Food Democracy to facilitate dialogue, share information, and promote joint action among Canadian civil society organizations working toward food security. These lists preceded two important organizations that the CSFS helped create: Food Secure Canada and the Canadian Association for Food Studies.

Food Secure Canada (FSC), an alliance of organizations across Canada working together to advance food security

and food sovereignty, was formed following the Working Together Conference at Ryerson University in 2001. CSFS Co-Director Mustafa Koç served as Chair of the Steering Committee during FSC's first year. The Centre hosted FSC's 9th Assembly in October 2016 at Ryerson University.

The Canadian Association for Food Studies (CAFS) was founded at Ryerson University in April 2005 to strengthen networks of food-focused researchers, practitioners, and community advocates through interdisciplinary food systems research and advocacy. As the publisher of the Canadian Food Studies journal, CAFS has become the leading Canadian organization in food studies. The Centre provided a home for CAFS in its formative years, and CSFS members Mustafa Koç (President) and Fiona Yeudall (Treasurer) served on CAFS's Executive Committee during the 2005-2008 term. Mustafa received the CAFS Lifetime Achievement Award in 2017. CAFS had its Annual General Meeting at Ryerson University in 2017 as part of the Congress of the Federation of Humanities and Social Sciences. Minister of Agriculture and Agri-Food Canada, Lawrence MacAulay, announced the federal government's commitment to a Food Policy for Canada at that meeting.

The CSFS has been an advocate of Indigenous and Black food sovereignty. Locally, the Centre has collaborated with and steadfastly supported the Afri-Can FoodBasket for 25 years, an initiative that led to the establishment of the Black Food Sovereignty Alliance, a leading voice and mobilizer in addressing food insecurity through processes that emphasize food justice, anti-Black racism, and sovereignty. The Black Food Sovereignty Alliance advocated for a strategy. It worked with the City of Toronto's Confronting Anti-Black Racism unit to build and launch the Black Food Sovereignty Plan, the first of its kind in Canada. It aimed at advancing food sovereignty issues affecting Black communities in the Greater Toronto Area and beyond (see Chapter 9 in this volume). The CSFS hosted the launch of the Black Food Sovereignty food strategy and food policy recommendations in 2023.

Over the years, CSFS researchers have also worked with partners around the world and hosted many international scholars from Brazil, countries in Europe, Mexico, Türkiye, and Vietnam. Of particular note has been the Centre's partnership with scholars, civil society organizations, and members of the public sector in Brazil, largely led by Cecilia Rocha, who served as the Director of the CSFS from 2005 to 2010 and again from 2019 to 2021. This collaboration has led to many mutual learnings (see Chapter 6 in this volume as an example) and the development of the Betinho Project, which celebrates the life and work of Brazilian activist Herbert "Betinho" de Souza (1935-1997), who lived in Toronto as a political refugee during the military dictatorship in Brazil in the 1970s. A separate book celebrating the 30th anniversary of the CSFS (Rocha & Moraes, 2026) presents a sample of themes developed by partners in the Betinho Project, illustrating Betinho's legacy of the fight for social justice and food security in Brazil.

Figure 2: Timeline of Key Activities Related to the Centre for Studies in Food Security

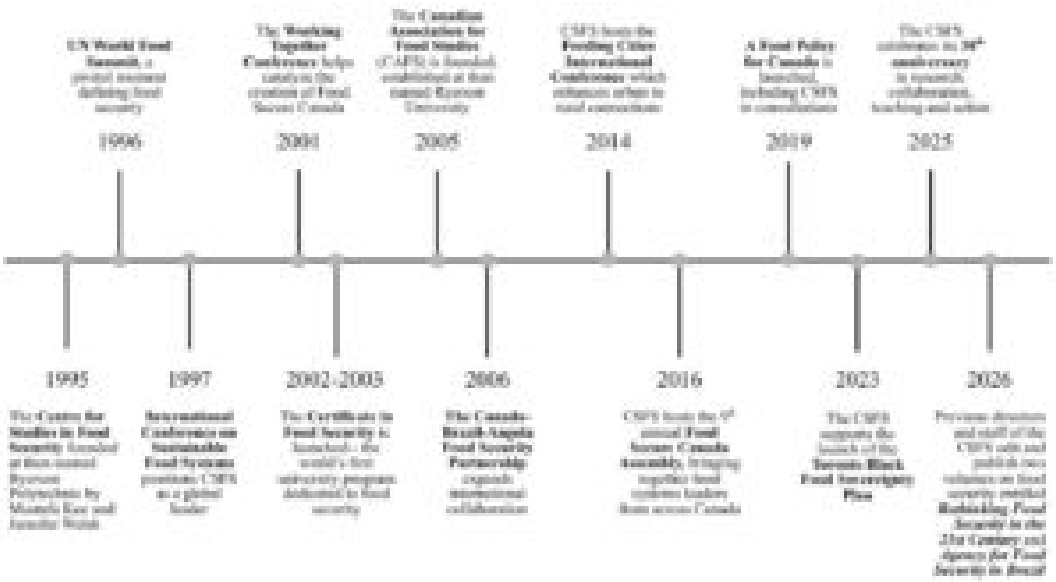

Figure 2. Key milestones in the Centre for Studies in Food Security's history, from its founding in 1995 to the publication of two food security volumes in 2026.

III – Ongoing Challenges and Limitations in Promoting Equity and Justice

The Centre is a university institution, and it is prudent to recognize that higher education institutions emerged within colonial systems of power and continue to reflect neo-colonial structures, practices and ways of knowing that reproduce imbalances of power, influence, visibility and resource distribution. Higher-education institutions have a history of promoting European and North American worldviews and colonial logics as universal knowledge, while marginalizing African, Indigenous and other non-Western knowledge systems. This occurs through curricula that is dominated by Euro-centric intellectual traditions, a lack of representation from racialized scholars, limited attention to culture in research methods and teaching, and inadequate recognition or long-term resourcing of community knowledge (Husbands et al., 2026; Stein, 2022). Research is also often driven by the priorities of government and industry funders from the global North, and can be 'extractive' in nature.

Bothello & Bonfim (2025) explain that research is extractive when communities being studied receive little in return, and/or there is inequitable sharing of data/knowledge, professional, financial and reputational benefits, and/or authority. They call for greater reciprocity, accountability, and community benefit within and across research and knowledge mobilization practices.

Of course, universities and higher education institutions also serve as vital sites where colonialism and oppression are critically examined and challenged, and marginalized perspectives are acknowledged and amplified along with calls for greater social justice. As Enslin and Hedge (2024) summarize, higher education institutions have made efforts to decolonize their practices through revising curricula to include diverse knowledge traditions, interrogating institutional ties to land dispossession, slavery and other colonial projects; (talks of) divesting from socially and environmentally exploitative industries; and developing more equitable partnerships with communities and local leaders. They argue that real change requires going beyond curriculum modifications, and underscore the stronghold neoliberalism has on the strategies and budget allocations of contemporary universities, resulting in 'superficial', ad-hoc, or temporary attempts to strengthen equity and justice. Ahmed's seminal work warns that these kinds of initiatives can amount to little more than institutional performance while underlying power structures remain largely intact (2012).

Across Toronto Metropolitan University, where the CSFS is embedded, several strategies have been pursued

simultaneously, ranging from short-term, ad hoc initiatives to more significant resource investments aimed at durable change. Examples include curriculum reforms, the creation of the Yellowhead Institute (an Indigenous-led research centre), dedicated funding for hiring Black and Indigenous faculty, well-focused programs for graduate and postdoctoral fellows, the creation of a Global Migration Institute, and renaming the university itself (which was formerly Ryerson after Egerton Ryerson, whose educational framework and recommendations heavily influenced the design of Canada's Indian residential school system).

The CSFS has directed resources and support to the Black Food Sovereignty Alliance by providing student co-op or intern positions to build capacity, providing office space, creating affiliate memberships for Black community leaders, and advocating for access to library and other university resources, such as conference space and tech support. The Centre also advocated for university funding to support a Food Policy Fellow position, providing a salary stipend, research resources, and event support to a community leader and scholar within the Black Food Sovereignty movement. Notably, the resources secured could fund this position for only one year. The Centre has also channelled resources and advocated for greater university support of a catered launch event for the Black Food Sovereignty policy paper, which foregrounded Black community leadership and community engagement.

While such forms of support are important and have their benefits, Black and Indigenous communities continue to be relegated to precarious, impermanent positions with short-term, uncertain resourcing. Or, in the case of long-term hiring and resource commitments, individuals are often brought into workplace cultures that place much of the "equity and justice portfolio" on faculty who are already experiencing and living the consequences of systemic injustices. As Husbands and colleagues (2026) have argued, merely hiring Black scholars into a system that remains fundamentally anti-Black may challenge the salience of those scholars' commitment to Black communities – they progress through a reward system built on individual accomplishment (i.e., grants and publications) disconnected from the wellbeing and welfare of Black communities. Husbands and his co-authors argue that community-based and community-led institutions, movements, and networks must also be appropriately and equitably resourced through mechanisms that ground expertise in collective self-determination. This approach will support Black scholars and community stakeholders to collaboratively champion the ideas and interventions instrumental to achieving health and wellbeing among Black communities. In other words, systems that train and support researchers must be redesigned as investments in community health and wellbeing rather than simply as investments in universities and research that thwart Black people's wellbeing (Husbands et al., 2026). The universities in which research centres and institutes are embedded must better account for how their structures, governance and budgeting practices continue to sustain the effects and consequences of coloniality, capitalist exploitation and related inequalities (Enslin & Hedge, 2024).

IV – About This Volume

We are proud to share with you, our readers, the outcome of many hours of writing, revising, consulting, and collaborating that brought this project to fruition. Our aim is to provide an accessible introduction for students who are new to the study of food security, while also inviting established researchers, educators, and practitioners to engage with diverse and emerging perspectives on food security in Canada.

The Chapters in this volume offer a glimpse into the myriad areas of research, perspectives, and approaches to understanding food security represented in the work of members of the Centre for Studies in Food Security. Across these contributions, authors trace histories, confront points of contention, highlight persistent injustices, and identify strategies that have been—or could be—used to advance a more socially just and equitable society. At times, these conversations are uncomfortable; in some instances, they are contradictory. Yet, the Chapters across this volume largely read as companion pieces, complementing and challenging one another while bringing a diversity of voices and perspectives to conversations about food security in Canada.

Section 1: Debating Food Security examines food security as a contested concept whose shifting definition reflects broader transformations in global systems and competing visions of how food systems should be governed. ***Chapter 1:***

Changing Discourses of Food Security, by Mustafa Koç, unpacks how food security has been a key concept in defining the conditions of food provisioning in modern market economies. This Chapter examines the evolution of food security as a discourse that legitimizes institutional practices and the social consequences of the food system. By reviewing changes in the social and political organization of modern capitalist societies and corresponding changes in the food system in the 20th Century, the Chapter demonstrates how shifts in food security's definition reflect shifting priorities across global economies. ***Chapter 2: A Table for All: Reimagining "Culturally Appropriate Food" Through an Interdisciplinary Dialogue***, by Yukari Seko and Jennifer Brady, examines the concept of "culturally appropriate food" in relation to food security. This chapter shows that while the term is increasingly recognized in policy and practice, it is often treated as a supplementary concern for culturally "othered" populations rather than a core dimension of food security. Drawing on interdisciplinary perspectives from health communication and dietetics, this Chapter challenges the assumption that dominant Anglo-European foodways are culturally neutral. Instead, they argue that food practices and policies are culturally situated and shaped by relations of power, including race, class, gender, migration, and ability.

Section 2: Food Policy and Practice examines how public policy can effectively address food insecurity and transform food systems. ***Chapter 4: Policy Instrument Considerations for Food System Change***, by Rod MacRae, unpacks a wide range of policy instruments for shaping markets, influencing behaviour, establishing legal frameworks, and advancing public policy objectives. This Chapter examines the classic dilemmas of policy instrument choice and design, exploring the trade-offs that influence effectiveness across a range of intervention strategies. It argues that meaningful food system transformation requires coherent mixes of complementary policy instruments tailored to complex social, environmental, and economic objectives, rather than reliance on isolated or voluntary measures. ***Chapter 5: From Charity to Justice: Using Arts-based Knowledge Mobilization and Research Creation for Effective Food Insecurity Solutions***, by Elaine Power, Amanda White, Jennifer Brady, Jennifer Black, and Dian Day, recognizes that evidence alone rarely drives policy change and that there is a need to reshape public narratives to build support for structural solutions to food insecurity. Drawing on theories of policy change, political economy, and knowledge mobilization, the Chapter proposes arts-based knowledge mobilization (ABKM) and research-creation as innovative strategies for reframing public understandings of appropriate responses to food insecurity from charity to justice. ***Chapter 6: How Brazil's National School Food Programme Aligns with the Six Principles Announced in Canada's First National School Food Policy***, by Cecilia Rocha, Luciene Burlandy, Roseane Sampaio and Patrícia Camacho Dias, illustrates how comprehensive, rights-based public policies can simultaneously improve food security, public health, local economies, and social equity. Using Brazil's National School Food Programme as an example, the chapter shows how school food initiatives in Canada can improve child nutrition, while also strengthening local food systems and advancing broader social, environmental, and economic policy goals. Brazil's experience offers valuable lessons for implementing Canada's emerging national school food programme.

Section 3: Community Action and Representation foregrounds the voices, knowledge, and leadership of communities historically marginalized within food systems scholarship, policy, and practice. ***Chapter 7: Decolonial and Intersectional Dimensions of Food Security in the 21st Century*** by Ryan Antonio, Louise Huneault, Andrea Moraes and Gertrude Omoro demonstrates the enduring value of using an intersectional and decolonial lens to examine food security in the 21st century. This chapter examines food agency through the historical and contemporary experiences of Black and Indigenous peoples; questions contemporary measurements of poverty and food insecurity and their implications for senior women; and explores the complexity of food insecurity among transgender communities in Canada. ***Chapter 8: Haudenosaunee Worldviews of Food Sovereignty, Governance and Security: Towards More Just and Sustainable Food Systems***, by Sandra Juutilainen, Deyowidront (Teri) Morrow, Jennifer Yessis, Rhona M. Hanning, Bonnie Freeman and Sangita Sharma, explores Haudenosaunee perspectives on food sovereignty, governance, and food security. Drawing on interviews with community leaders from Six Nations of the Grand River, and using a strengths-based qualitative approach informed by Two-Eyed Seeing, the Two Row Wampum research paradigm, and the Five Rs of Indigenous research, this Chapter examines how community-led food initiatives contribute to healing, cultural continuity, and self-determined food systems. ***Chapter 9: Towards Food Sovereignty for Black Communities in Toronto: Rights, Self-determination, and the Pursuit of Justice,*** by Mayet Zegeye, Anan Lololi, Queen Selassie, and Winston Husbands, demonstrates how Black communities in Canada experience exceptionally high rates of food insecurity, yet their

experiences are often marginalized within mainstream discourses about food policy and research. This Chapter argues that food insecurity among Black communities is embedded within a social system that undermines Black people's wellbeing broadly. Drawing on the history of the Afri-Can FoodBasket (AFB), the Chapter traces the evolution of Black-led responses to food insecurity in Toronto from emergency food access initiatives to a broader movement for food sovereignty. ***Chapter 10: Evolving Food System Challenges, Opportunities and Understandings for Supporting Immigrant Wellbeing and Inclusion*** by Jenelle Regnier-Davies & Sara Edge demonstrates that immigrants in Canada experience disproportionately high rates of food insecurity, yet discussions of immigrant food security have traditionally emphasized vulnerability, settlement challenges, and barriers to food access. This chapter argues for a broader perspective that recognizes the assets, agency, and innovations immigrant communities contribute to local food systems. Drawing on contemporary literature and two community-based case studies from Toronto's inner suburbs—the Rexdale Community Hub and the Scarborough Food Security Initiative—the chapter examines how immigrant-serving organizations are reshaping food system governance through culturally responsive, community-led initiatives.

Lastly, **Part 4. Toronto Metropolitan University and the Centre for Studies in Food Security** highlights the Centre's enduring contributions through two initiatives that embody its commitment to innovation, interdisciplinary collaboration, and community engagement. ***Chapter 11: Learning About Green Roof Design and Farming in Toronto***, by June Komisar, examines the evolution of rooftop agriculture in Toronto, highlighting how policy, design, education, and research have enabled productive green roofs. Focusing on Toronto Metropolitan University (TMU) as a case study, the chapter traces the development of rooftop farming from early architectural proposals and municipal green roof policies to the establishment of the TMU Urban Farm as a living laboratory for research, teaching, and community engagement. ***Chapter 12: The Certificate in Food Security: Teaching Agents of Change***, by Joe Nasr, unpacks the history of the Certificate in Food Security at Toronto Metropolitan University as the first university-level program dedicated to food security as a comprehensive, interdisciplinary field of study. This chapter traces the Certificate's origins, evolution, and enduring impact over more than two decades, highlighting institutional partnerships, pedagogical innovations, and collaborative curriculum development that enabled the creation of a pioneering educational program grounded in the Centre for Studies in Food Security's 5As of food security.

V – Final Words

We aimed to complete and release this book to celebrate the 30th anniversary of the Centre for Studies in Food Security (CSFS), which took place in 2025. Our original call for contributions generated more submissions than we could accommodate in a single book, leading to the development of two volumes: (1) *Rethinking Food Security in the 21st Century: Contemporary Trends, Policy and Agency* and (2) *Agency for Food Security in Brazil: Social Mobilization, Participation and Public Policy*.

Throughout its history, the CSFS has accomplished a great deal with relatively few resources, and developing these books was no exception. Published by the CSFS through TMU Pressbooks, these two volumes are a testament to the energy, commitment, and generosity of the colleagues, friends, students, and allies who have sustained the Centre over the past 30 years. Completing them took many months of work and considerable unpaid labour, and we are deeply grateful to everyone who contributed their time, knowledge, and care to the process.

As editors, we established the themes and format of the volumes and supported contributors from submitting their initial abstracts in the summer of 2024 through publication in the fall of 2026. We organized collaborative book-writing sessions for each volume, providing opportunities to discuss chapter ideas, identify connections across contributions, and collectively consider the broader aims of the books. Authors also participated in a peer-review process, reading one another's chapters and providing constructive feedback to their fellow contributors. The chapters were finalized in winter 2025/2026, followed by about six months of editing and copyediting. We did not seek to impose a single perspective on contributors; rather, the chapters reflect their varied professional backgrounds, lived experiences, areas

of expertise, and unique insights. The CSFS has always been more than any one person, project, or perspective; it is the sum of the people and relationships that have shaped it. These volumes reflect that same spirit.

Over the past 30 years, the CSFS has created spaces for collaboration, debate, research, learning, and action, and we have been fortunate to work alongside many remarkable people. There is much to celebrate; we cannot claim that three decades of collective labour have produced a food-secure world. Many of the challenges that motivated the creation of the CSFS remain, while new and increasingly complex challenges continue to emerge.

These two volumes therefore look both backward and forward. They offer readers insights into what has been learned and accomplished over the past three decades while also asking what will be required to advance food security in Canada, Brazil, and beyond. Climate change, economic instability, artificial intelligence, war, displacement, and natural disasters will continue to reshape food systems and create new challenges in the decades ahead. Yet these challenges also underscore the importance of collective action, critical scholarship, community knowledge, and public engagement that have characterized the CSFS since its beginning.

As we mark 30 years of the Centre for Studies in Food Security, we hope these volumes contribute to that ongoing work. Above all, we hope they encourage continued collaboration toward a more peaceful world, just and sustainable food systems, and the realization of healthy, culturally appropriate, and sufficient food for all.

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PART 1. DEBATING FOOD SECURITY

Food security has become a central framework for understanding food provisioning in modern societies, yet its meaning has evolved alongside changing political, economic, and social priorities. **Part 1. Debating food security** examines food security as a contested discourse, arguing that shifts in its definition reflect broader transformations in global capitalism and competing visions of how food systems should be governed. It then turns to the concept of culturally appropriate food, demonstrating that while it is increasingly recognized in policy and practice, it is often treated as a supplementary concern for culturally "othered" populations rather than as a core dimension of food security. Drawing on interdisciplinary perspectives from health communication and dietetics, the authors within this section challenge the assumption that dominant Anglo-European foodways are culturally neutral. Instead, they argue that all food practices are culturally situated and shaped by relations of power, including race, class, gender, migration, and ability. Reframing culture as dynamic and relational, this section contends that equitable food systems require recognizing culturally appropriate food as foundational to identity, dignity, belonging, and food security, rather than as an optional accommodation.

2. Changing Discourses of Food Security

MUSTAFA KOÇ

Abstract

Food security has been a key concept in defining the conditions of food provisioning in modern market economies. Despite its widespread use, food security remains a somewhat confusing concept, with multiple definitions. This paper examines the evolution of food security as a discourse that legitimizes institutional practices and the social consequences of the food system. By reviewing changes in the social and political organization of modern capitalist societies and corresponding changes in the food system in the 20th Century, the paper argues that shifts in definitions of food security reflect changing priorities in the global economy and the incorporation of elements from contesting discourses into the food security discourse.

I – Introduction

Food security is defined as a condition "when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization [FAO], 2001). Despite its widespread use, food security remains a complex concept with multiple definitions that highlight different priorities and continue to evolve over time. By the early 1990s, one study had already catalogued nearly 200 competing definitions of food security (Smith et al., 1992). These differences highlight ideological divides between hegemonic and counter-hegemonic social forces, as well as contested interpretations of the optimal conditions for food provisioning in market economies. By examining changes in the food system in the post-World War II era, this paper suggests that the confusion is functional rather than accidental and reflects shifting priorities in the global economy, as well as the contested nature of food provisioning in market economies.

This paper identifies food security as a discourse and examines the socioeconomic and political context in which it has evolved since its first formulation. Lessa (2006) defines discourse as "systems of thoughts composed of ideas, attitudes, courses of action, beliefs and practices that systematically construct the subject and the worlds of which they speak" (p. 285). As such, discourses are contested ways of understanding realities that preoccupy public awareness. Discourses change, evolve, and eventually disappear when they no longer capture the public's attention. They reflect historical processes, public discussions, and interpretations of these processes by various social forces and ideologies. Food security as a discourse refers to ideas, attitudes, courses of action, beliefs, and practices that define the conditions of food provisioning in modern society.

In its conventional usage, the discourse of food security has served as a practical argument that legitimizes market relations, suggesting that food security can be achieved within the capitalist agri-food system. Rocha (2007) reframes food insecurity as a market failure rooted in economic, social, and policy systems rather than a shortage of food produced or distributed. At the same time, the threat of food insecurity serves as a tool for disciplining the public, ensuring that subordinate populations comply under the threat of hunger. A notable example of using food insecurity as a disciplining tool can be seen in trade embargoes or sieges during wars, which punish entire populations, as in North Korea, Cuba, Venezuela, Iraq, and Palestine, in the name of pressuring their governments.

II – The Modern Agri-Food System and Food Security

The most important socio-economic factor shaping modern agri-food systems has been the development of a capitalist world economy. The expansion of the capitalist economy has led to the commodification of food, the erosion of traditional rural livelihoods, urbanization, industrialization, and globalization.

The capitalist economy is characterized by private ownership of the means of production and widespread commodity relations. In earlier societies, the primary goal of producing and distributing goods was to satisfy basic human needs; however, under capitalism, profit maximization became the main aim. As capitalism spread globally, it transformed all prior forms of production. Natural elements, such as land, water, forests, and minerals, along with human labour, were viewed as commodities that could be bought and sold in the marketplace and as resources to be exploited for profit. As a result, many subsistence-based agricultural producers lost access to land and the ability to produce their food. Moving to urban areas, they were forced to become workers in capitalist industries, selling their labour power to those who own the means of production in exchange for a wage. Like labour power, food and most other necessities of life were transformed into commodities that people could obtain only through market relations (Magdoff, 2012; Vivero-Pol, 2017).

Competition among individual producers to maximize profit requires each enterprise to find ways to increase labour productivity by modernizing its production process. These competitive pressures threaten the system's stability by leading to periodic crises of overproduction and declining profit rates. Attempts to seek profits elsewhere have led to the global expansion of capitalism.

Across the phases of global capitalist expansion, the dynamics of capitalist accumulation, economic development strategies, class relations, patterns of political conflict, and dominant ideologies and discourses have varied significantly (Koç, 2013). Each stage, while reflecting the general laws of motion of capitalist accumulation, has revealed unique arrangements for the organization of production and distribution, labour regimes, and socio-political structures and state regulations. Several observers, such as Friedmann and McMichael (1989) and McMichael (2009), have identified similar patterns of regulation in the food system, labelled "food regimes."

Post-World War II Hegemonic Order

Although the term "food security" was initially introduced at the World Food Conference in 1974, the discussion on food security developed within the international institutional environment following World War II. From the beginning, the focus was on modernizing and rationalizing production and removing barriers to global trade. This focus reflected the technological determinism that has dominated in Western countries since the Enlightenment and the Industrial Revolution. The growth of productive capacity and trade was seen as the most effective way to address hunger and many social issues. As early as 1941, the Atlantic Charter, an agreement between the US and British governments, included "freedom from want," "lowering of trade barriers," and "global economic cooperation and advancement of social welfare" (Cépède, 1984). John Boyd Orr, who would become the first Director-General of the FAO, argued for increasing food production, expanding the global economy to give everyone purchasing power, and controlling the world's food supply (Orr, 1943, pp. 34-36).

Another key focus of the post-war food security discourse was the strategic use of surplus food as international food aid. Food aid became an important political tool for supporting friendly regimes and encouraging former colonies to shift from subsistence-based peasant agriculture to specialized commodity production for international trade. In 1954, the U.S. Agricultural Trade, Development and Assistance Act (Food for Peace) was enacted to provide U.S. food aid to support emerging nations in the global South. In 1961, the World Food Programme (WFP) was established to leverage food aid for social and economic development.

The 1950s and 1960s marked the golden age of consumerism in North America. The Fordist growth model drove this era, emphasizing mass production for mass consumption, increased output through efficiency and standardization, and

technological innovation as a key driver of change, alongside centralization and control through specific practices and technologies (Albritton, 2009). Notable examples of Fordist efforts to efficiently provide affordable food to the masses include the fast-food revolution, which Ritzer (1996) calls McDonaldization, and its agricultural counterpart, the Green Revolution (Bonanno & Constance, 2001). Fordist and Taylorist production systems introduced assembly-line technology into fast-food manufacturing. With an emphasis on efficiency, calculability, predictability, and control, production rationalization in the fast-food sector soon influenced other major parts of the value chain, including meat processing, frozen fruits, and vegetables (Ritzer, 1996; Schlosser, 2001). In its quest for high profits, the fast-food industry aimed to cut production costs by employing unskilled, non-union workers, automating processes, and prioritizing quantity over quality.

The Green Revolution, which began in the 1940s and continued into the 1960s and 1970s, spurred further modernization of agriculture in many developing countries (Pingali, 2012). It depended on intensive agricultural methods, using high-yield hybrid seeds and farm inputs such as fertilizers, herbicides, and pesticides. Supported by irrigation and mechanization, it led to significant increases in grain yields. However, these technologies were inaccessible to poor rural families, concentrating production among mechanized farmers and pushing millions of impoverished peasants into cities (Rosset et al., 2000). Urban populations grew dramatically after World War II. In 1950, only 30 percent of the world's population lived in cities. By 2025, this figure had risen to about 58 percent (United Nations [UN], 2025).

Food Security Discourse as a Response to the Crises of the 1970s

The excitement of the Green Revolution was dampened by the 1974 Bangladesh famine and the 1973 oil crisis. A large grain trade agreement between the US and the Soviet Union also influenced grain prices on global markets (Friedmann, 1993). For developing countries, rising energy and grain prices worsened their trade deficits, prompting borrowing from foreign lenders and causing significant debt problems in the Third World (Bjornlund et al., 2022).

Three international conferences were held in 1974: the World Population Conference (19-30 August, Bucharest); the Cocoyoc Symposium on Patterns of Resource Use, Environment and Development Strategies (8-12 October); and the World Food Conference (5-16 November, Rome). These conferences set a new tone for international cooperation and a new North-South conflict over solutions.

The World Population Plan of Action established that population growth and development are closely linked and that population policies must be integrated into broader development planning rather than treated as a standalone concern. The Cocoyoc Declaration recognized that every person has basic needs — food, shelter, clothing, health, education — and that any development that fails to meet these or actively disrupts them is not real development at all (Galtung, 2010).

The World Food Conference identified food security as an international goal by emphasizing food supply, expansion of consumption, and market stability. Food security was defined as "availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" (UN, 1975, p. 3). The declaration adopted a rights-based understanding at the end of the conference, recognizing that "[e]very man, woman and child has the inalienable right to be free from hunger and malnutrition to develop fully and maintain their physical and mental faculties." The conference adopted the International Undertaking on World Food Security, which explicitly recognized that "world food security was a common responsibility of all members of the international community" and called on all FAO member states to cooperate in achieving it (UN, 1975, p. 12).

Critics argued that the issue was neither food scarcity nor overpopulation. The real cause of food insecurity was closely linked to colonial legacies, dependency relations between the North and the South, and unequal access to land and other resources (George, 1976; Lappé & Lappé, 2002; Mamdani, 1972). In response to these critiques, the FAO adopted a broader definition of food security in 1983 that went beyond the 1974 version and emphasized access: "Ensuring that all people at all times have both physical and economic access to the basic food that they need" (FAO, 1986).

This shift in the conceptualization of food security may reflect how dominant institutional actors, such as the FAO and the World Bank, adopted their opponents' language and incorporated certain insights from their criticisms. However, we also need to recognize the fact that these changes were neither threatening to the dominant institutional arrangements of the food system nor to the regimes of accumulation. They also did not contradict the emerging neo-liberal paradigm that emphasized individualism, market liberalism, and the shrinking role of the state in the economy (Duncan, 2015; Fairbairn, 2010; Jarosz, 2009; McMichael, 2005).

Neoliberal Discourse of Food Security

In the 1980s, neoliberalism arose as a new developmental discourse and public policy advocating for the free movement of goods and services across borders, the reduction of the state's role in the economy, the dismantling of social programs, and modifications in working conditions worldwide (Friedland, 2004; McMichael, 2005; Moreira, 2004). Neoliberal reforms implemented by many governments aimed to dismantle state-run social programs and led to changes in public policies, programs, and institutions such as minimum wage laws, trade union regulations, environmental protection acts, unemployment insurance, public healthcare, marketing boards, supply management, and cooperative structures (Bonanno, 2004; Burch & Goss, 1999).

The neoliberal restructuring of the food system focused on branding, product diversification, placement strategies, advertising, targeted marketing, centralized ordering, information technology, and flexible specialization. Another notable aspect of this period was growing corporate concentration and control, alongside a decline in the influence of nation-states. Supranational bodies and international treaties such as the General Agreement on Tariffs and Trade (GATT), the World Trade Organization (WTO), the International Monetary Fund (IMF), and the World Bank have become increasingly significant in shaping the flow of financial, commercial, and productive capital. Meanwhile, nation-states established the boundaries of interconnected global markets and regulated or restricted labour mobility.

New strategic alliances, mergers, takeovers, and both vertical and horizontal integration strategies have enabled global transnational corporations (TNCs) to control various segments of production, marketing, service, and financial functions. Agri-food TNCs often combine productionist, commercial, and speculative strategies, gaining control over broader market segments (Moreira, 2004). Vertical integration, which links different production, processing, and retail segments, allows firms to own their upstream suppliers and downstream buyers, effectively creating virtual monopolies.

Neoliberal restructuring led to a decline in well-paying unionized manufacturing jobs, a rise in service-sector employment, and an increase in precarious and part-time work. In rural areas, proletarianization or marginalization was unavoidable for the dispossessed. Even small family farmers struggled to survive on the land in a market dominated by large corporations. While feeding the world, many farmers in the North and South recognized that market forces continued to erode their capacity to feed their own families (Qualman, 2001; Wiebe, 2021). The decline in social programs made the situation worse, resulting in higher rates of poverty and food insecurity.

Neoliberal food security discourse shifted from rights-based language to market-oriented language that defined food as a commodity and reduced food insecurity to insufficient income to purchase food or to a form of market failure. A World Bank document (1994) clearly reflected this shift:

In practice, however, food is a commodity. Access largely depends on income and asset distribution, as well as the functioning (or malfunctioning) of food production and marketing systems. From this perspective, access to food is governed by the same factors that govern access to any other commodity (Serageldin & Landell-Mills, 1994)

Another important change in the food security discourse during the neo-liberal era was a shift from a state-centric model to market liberalism, and from national-level to household-level food security objectives. As World Bank experts suggested, "food security is achieved only if all households have the ability to buy food. There is no necessary link between self-sufficiency [at the national level] and food security" (Jarosz, 2011, p. 125).

These changes were paralleled by a new emphasis on decentralization of the state (regional and local governance) and

on civil society organizations, such as community-based organizations, NGOs, and charities, in service delivery to fill the gap left by the shrinking of the nation-state (Koç, 1994; Moreira, 2004).

In this environment, driven mostly by market priorities, civil society organizations (CSOs) have sought to be the voice of the marginalized and to defend the priorities of social justice and development. Governments and industry representatives have invited CSO representatives to consultative meetings to gather feedback on various issues related to international and domestic policy. Civil society representatives have often criticized these so-called consultations as lip service, serving only to legitimize existing structures rather than being a transparent, participatory, and democratic process (Hodgson, 2004).

The Rome Declaration and the Emergence of Food Sovereignty and Community Food Security Discourses

As national social programs shrank or were offloaded onto provincial and local governments, the burden of care often fell on families and CSOs. Philanthropic organizations, such as food banks, started filling the gap left by government-run social programs. However, unlike the state, which has legitimate political authority, civil society organizations lack the legitimacy conferred by electoral power. Civil society organizations have often been dismissed as self-serving interest groups, operating with limited financial resources and competing among themselves, yet expected to replace the eroding functions of the welfare state. Moving from project to project, they faced constant pressure to secure funding, rely on volunteer labour, and manage high labour turnover (Koç & Bas, 2012; Koç et al., 2008).

By the 1990s, food insecurity was increasing not only in underdeveloped countries but also in advanced industrial nations such as Canada (Riches & Silvasti, 2014). According to FAO estimates, around 800 million people worldwide experienced hunger and malnutrition at the turn of the century (FAO, 2001). In response to growing public criticism, the FAO convened the World Food Summit in Rome in 1996 to develop a global food security plan. The Rome Declaration on World Food Security (WFS) and the WFS Plan of Action, adopted in 1996, called on each nation to create and implement action plans to achieve food security both domestically and internationally. A commitment was made "to eradicate hunger in all countries with the target of reducing by half the number of undernourished people by no later than 2015." (FAO, 1996). FAO identified availability, access, and utility as the pillars of food security. Stability was added later as the fourth pillar in 2009.

A parallel civil society meeting at the WFS, led by the transnational peasant movement La Vía Campesina, strongly criticized corporate concentration, global trade policies, and social inequality. Via Campesina defined food sovereignty as "the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity" (La Vía Campesina, 1996), a definition later broadened at the 2007 Nyéléni Forum to "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Claeys, 2015; Nyéléni, 2007; Rocha & Liberato, 2013).

What distinguished the food sovereignty thesis from the food security thesis was, first, its return to the rights-based language that had been present in the 1974 Universal Declaration on the Eradication of Hunger and Malnutrition — and, before that, in the Universal Declaration of Human Rights (1948) and the International Covenant on Economic, Social and Cultural Rights (1966) — but had been progressively stripped out of the food security discourse during the neoliberal era. Where the World Bank's formulation reduced food to "a commodity" and food insecurity to a problem of household purchasing power, food sovereignty re-politicized the question: it asked not whether people were fed, but who decided how, by whom, and on whose terms, food was produced. Food security, in this sense, describes a condition without a clear means of achieving it, and can be claimed equally by agribusiness, trade negotiators, and development agencies. Food sovereignty, by contrast, names a relation of power. This agnostic stance about means made food security a legitimizing discourse, and the refusal of that agnosticism made food sovereignty a counter-hegemonic one (Fairbairn, 2010; Patel, 2009).

Second, the food sovereignty thesis articulated the grievances of peasant and small-farmer organizations, rural

communities, and developing countries that found that formal national sovereignty no longer protected them. The Uruguay Round Agreement on Agriculture (1995) obliged Southern states to open their markets to imports while permitting continued subsidization of Northern agriculture, exposing peasant producers to dumped commodities priced below their production costs. TRIPS extended intellectual property claims over seeds and genetic resources that farming communities had developed collectively over generations. Structural adjustment programs had already dismantled marketing boards, input subsidies, and price supports. In this context, "sovereignty" meant demanding policy space for peoples and states to protect domestic food production, pursue agrarian reform, and regulate corporate power (McMichael, 2005; Wittman et al., 2010). The choice of the word was thus neither rhetorical nor accidental: it located the cause of food insecurity in the institutional architecture of the global food regime rather than in deficits of production, income, or technology.

The food sovereignty thesis achieved notable discursive victories. Ecuador (2008), Bolivia, Venezuela, Nepal, Mali, and Senegal incorporated food sovereignty into constitutions or framework laws; the reformed Committee on World Food Security (2009) opened a formal Civil Society Mechanism that gave peasant organizations a seat in global food governance (McKeon, 2015); and the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas (2018) codified much of Via Campesina's rights agenda in international soft law (Claeys, 2015).

Yet food sovereignty is not without its own difficulties. Critics have noted its definitional instability (sovereignty of whom: the nation, the people, the community, the household?) and the tensions between defending national policy space and empowering peasants against their own states (Edelman, 2014; Agarwal, 2014). Others question whether small-scale agroecological production can provision a majority-urban world and warn against romanticizing a unitary "peasantry" divided internally by class, gender, and generation (Bernstein, 2016). More significant for our purposes, however, is that food sovereignty is also vulnerable to the same dynamics that food security discourse had faced. Governments adopted the language of food sovereignty without redistributing land or curbing agribusiness.

Community food security was a framework informed by the food sovereignty thesis and, many observers noted, a progressive alternative (Bellows & Hamm, 2003; Mooney & Hunt, 2009; Slater, 2007; Winne et al., 1997). However, it also needs to be contextualized within neoliberal reform, which shrank the welfare state by shifting the burden of care to families, communities, and civil society organizations. While one cannot dismiss the contributions of community food security initiatives, community food security was not a serious challenge to the institutional practices of the global food system and neoliberal policies. In fact, by seeking funding from state agencies or corporate donors, these initiatives were tied to their funders' support.

The follow-up meeting to the WFS was scheduled to be held in Rome in November 2001, but was cancelled due to security concerns following the September 11 attacks in the US that year. Shortly after the summit, FAO's World Agriculture: Towards 2015/2030 projected that the number of hungry would fall only to about 440 million by 2030 — meaning the WFS target would not be met even fifteen years later.

Food Security During the "Interregnum"

In the Prison Notebooks, Antonio Gramsci referred to the transition period between two hegemonic eras in the capitalist world system as an interregnum: "The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appear" (Gramsci, 1971, p. 276). Historians may call the first half of the 21st century an interregnum, as it represents the deepening crisis of the post-WWII hegemony of Pax Americana and a challenge it faced from the European Union and BRICS states, especially China.

A series of financial crises (2002, 2007-08, and 2020), regional crises such as the European debt crisis, and several country-specific crises destroyed millions of livelihoods, jobs, and welfare. Seemingly win-win solutions such as biofuels, land grabs, and speculation in commodity futures created more social, financial and environmental problems. Between 2004 and 2010, the amount of grain used for biofuel rose from 2 percent to 6.5 percent of global production (Searchinger, 2011). When speculation in global commodity markets and plans to use grains and oilseeds for biofuels

raised food prices, riots spread worldwide (Clapp & Cohen, 2009). Deregulation of financial markets enabled some organizations to speculate in futures markets, which contributed to the food price crisis of 2008-11 (Isakson et al., 2023; Kaufman, 2011; McMichael, 2022). Oil-rich countries aiming for long-term food security and investment firms seeking better returns through large-scale grain and oil-seeds production in a world of increasing commodity prices began purchasing or leasing large tracts of land in the South (Subramaniam et al., 2019), destroying the livelihoods of millions of rural producers.

Increasingly, food became a seemingly legitimate tool of punishment or discipline for unfriendly regimes. Sanctions in Iraq, Yugoslavia, North Korea, Palestine, Libya, Zimbabwe and elsewhere included the denial of food and turned into collective punishment for millions of people. Wars in Afghanistan (Khakpour et al., 2023), Iran (WFP, 2026); Iraq (Koç et al., 2007), Palestine (Rotz et al., 2024), Syria (Esin et al., 2024), Ukraine (Lin et al., 2023), Yemen (Perez Duque et al., 2025) along with conflicts in sub-Saharan Africa (Wudil et al., 2022) raised food prices, denied access to land, and destroyed livelihoods, thereby worsening conditions of global food insecurity. Many of these wars, such as those in Ukraine and Iran, also disrupted global supply chains, driving sharp increases in oil, fertilizer, and grain and oilseed prices and affecting people far from the war zones. The COVID-19 pandemic also negatively affected global food security (Vos et al., 2022).

In 2025, FAO reported that an estimated 673 million people experienced chronic hunger in 2023-24 (FAO, 2025). The Global Report on Food Crises 2025 reported that 319 million people across 53 countries faced acute food insecurity, primarily due to war and civil conflict (WFP, 2025). This period is also marked by political uncertainty, unilateralism, a lack of cooperation on fair trade, and declining international assistance for economic development. Given the potential adverse impacts of climate change, armed conflict, inflation, unemployment, financial crisis, and poor global leadership, global food security may deteriorate in the coming decades.

FAO's Responses to the Worsening Conditions of Food Security

With limited financial resources and in an increasingly hostile political environment toward UN agencies, FAO and other UN agencies have tried their best to avoid making the situation worse. In 2000, the UN established the Special Rapporteur on the Right to Food. Since then, several rapporteurs have repeatedly reported on global inequalities and ongoing violations of this right. However, little progress has been made because powerful states have remained indifferent.

Several new frameworks have been developed to establish principles and rules of conduct, with consequences for the right to food, food security, and sustainable food systems. The Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food (VGRtF) in 2004, the Five Rome Principles for Sustainable Global Food Security in 2009, the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT) in 2012, the Principles for Responsible Investment in Agriculture and Food Systems (RAI) in 2014, the Framework for Action for Food Security and Nutrition in Protracted Crises (FFA) in 2015 aimed to provide guidelines to protect food and nutrition security and the human right to food (Committee on World Food Security [CFS], 2021).

Another significant development was the FAO's adoption of a new methodology for calculating global food insecurity in 2012. FAO released its first World Food Survey in 1946. It was succeeded by reports in 1952, 1963, 1977, 1985, and 1996, which provided global estimates. FAO launched SOFI (The State of Food Insecurity in the World) in 1999 and began publishing annual estimates. In 2009, when the estimated number of people experiencing food insecurity reached 1.02 billion, Jacques Diouf, the Director-General of FAO, mentioned the 2008-2009 financial crisis, stating that "a dangerous mix of the global economic slowdown combined with stubbornly high food prices in many countries has pushed some 100 million more people … into chronic hunger and poverty" (FAO, 2009). Public outrage over rising food insecurity figures led to a petition signed by over 4 million people (Rowling, 2012). FAO responded by delaying the release of estimates until 2012 and revising its methodology. As critics argue, the new SOFI 2012 "increased the estimated number

of undernourished at the start of the timeliness series …, while decreasing estimates from 2000 onwards" (Iversen et al., 2023). With the new methodology, the 2015 targets were nearly achievable.

FAO continued to use the four pillars it adopted in 1996: availability, access, utility and stability until the 2020s. In 2020, a report by the Committee on World Food Security High-Level Panel of Experts (HLPE) suggested adding two more indicators, increasing the total to six (HLPE, 2020). The new pillars are sustainability and agency (Clapp et al., 2022; Termine, 2024). They define agency as "the capacity of individuals and groups to exercise a degree of control over their circumstances and provide meaningful input into governance processes. Agency is widely seen today as an important aspect of addressing widening inequities within food systems, including imbalances of power among actors within those systems" (Clapp et al., 2022, p. 3). While updating the existing four-indicator model is a step in the right direction, a more comprehensive evaluation of the previous four-dimensional model is needed, rather than merely adding sustainability and agency. From a critical perspective, what entered the official discourse was agency without sovereignty: the capacity to "provide meaningful input into governance processes" rather than the power to determine their outcomes.

HLPE's addition of "agency" and "sustainability" to the pillars of food security (HLPE, 2020) moves the proposed model much closer to CSFS's 5As approach that has been used since the early 2000s. As we discussed in Chapter 1, the 5As model includes cultural and ethical sensitivity (acceptability), nutritional and ecological sensitivity (adequacy), and a focus on the capacity of individuals, groups, or institutions to act independently (agency).

The 5As model used by the CSFS is an advance over FAO's 4 pillars because it considers cultural and nutritional context, sustainability concerns, and the role of agency. The BC Centre for Disease Control (2022) provides one of the most comprehensive definitions of food security that integrates the 5As of food security, sustainable and resilient food systems, and food sovereignty priorities in a single statement:

Food security means that everyone has equitable access to food that is affordable, culturally preferable, nutritious, and safe; everyone has the agency to participate in, and influence food systems; and that food systems are resilient, ecologically sustainable, socially just, and honour Indigenous food sovereignty.

III – Conclusion

Food security is an essential concept for understanding the conditions of food provisioning in modern market economies. It has been effective in highlighting shortages in this process and in offering policy solutions to improve food availability, accessibility, and utilization. However, it lacks a critical focus on the food system and fails to explain how everyday practices, structures, and institutions in the modern food system have created food insecurity.

Without such critical analysis, food security often served as a legitimizing discourse, with an optimistic outlook that practical approaches could eradicate hunger and malnutrition in capitalist economies through technological innovations to enhance productive capacity, effective storage and transportation mechanisms, and improved government services and policies, as well as food aid or social assistance programs targeting marginalized groups. This optimism was partly justified by the notable progress in productive capacity and poverty reduction during certain periods in the 20th century. However, during crises, most gains tend to vanish, affecting even larger segments of the global population. With shrinking natural resources, the productionist paradigm and reformist food security discourse are unlikely to provide practical solutions for a sustainable and just food system.

The greatest achievement of the food security discourse, and the source of its staying power, has been its capacity to absorb its critics' language, such as rights, access, agency and sustainability, without disturbing the structures that produce food insecurity.

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3. A Table for All: Reimagining "Culturally Appropriate Food" Through an Interdisciplinary Dialogue

YUKARI SEKO AND JENNIFER BRADY

Abstract

The concept of "culturally appropriate food" has gained traction in institutional and policy settings as a marker of equitable service delivery. However, it is often narrowly framed around the needs of those whose "culture" is considered too "foreign" to the dominant culture. In this chapter, we interrogate these limitations through an interdisciplinary dialogue between health communication and dietetics. Drawing from our research with diasporic communities in Toronto, Ontario, and Halifax, Nova Scotia, we trace how culturally appropriate food is often treated as a special need, namely a "cherry on top" of presumed neutral, middle-class Anglo-European food norms, rather than as central to food security, identity, and belonging. We argue that prevailing approaches position culture as the property of the Other, rendering dominant foodways normal. Rather than offering a fixed definition of cultural appropriateness, we reframe culture as a dynamic, relational, and political process shaped by and shaping systems of power, including race, class, gender, ability, and migration. While it remains uncertain whether "culturally appropriate food" can be a truly transformative concept, we contend that meaningful work in food security, food education, and health professional practice must begin by acknowledging the cultural values embedded within dominant frameworks, and by challenging the notion that cultural foodways are additional rather than foundational.

I – Introduction

In recent years, the concept of "culturally appropriate food" has gained traction across institutional and policy settings as an important consideration in delivering equitable services. However, the concept has become almost synonymous with the needs of those whose "culture" is considered too "foreign" from dominant, mainstream culture. Within this framework, sensitivity to cultural appropriateness is expected to help service providers (from dominant cultural backgrounds) serve clients (from non-dominant cultural backgrounds) more effectively. Despite its well-intentioned gesture, this framing narrows both the scope and the potential of the concept. It assumes that culture is static, that only certain populations have culture and attendant concerns regarding food, and that culturally appropriate food is a temporary bridge to assimilation rather than a fundamental aspect of food security and identity for all.

This chapter calls into question such limited interpretations. Through an interdisciplinary dialogue, we, two scholars from different disciplinary backgrounds — health communication and dietetics — explore how "cultural appropriateness" has been defined, deployed, and constrained. Drawing from our research with diasporic communities in Toronto, Ontario and Halifax, Nova Scotia, we trace how culturally appropriate food is often treated as a "special need" rather than a structural issue with broad social and political implications.

We position this work as both a critique and an invitation. Rather than offering a unified definition of cultural appropriateness, we seek to unpack the term, stretching and reworking it to explore what it might mean when cultural foodways are viewed as a dynamic, relational practice that touches all eaters, not just those categorized as immigrants, refugees, or newcomers.

We suggest that cultural appropriateness should be understood not as an afterthought, but as a central dimension of food security, professional practice, and individuals' sense of belonging to the community. It is not simply about adding "cultural foods" to institutional menus, but about questioning the normative standards that define *what counts as appropriate, and for whom*, in the first place. We assert that cultural appropriateness is not a hurdle to overcome on the path to assimilation, but a lens through which to understand the politics of taste, identity, and inclusion.

II – Disciplinary Palates and Positionalities

Our disciplinary and socio-cultural locations deeply shape how we understand the term "cultural appropriateness." While we both engage with food, health, and equity as researchers and practitioners, we do so from distinct academic traditions, disciplinary perspectives, and lived experiences that colour our approaches.

Yukari Seko approaches food through the lens of critical health communication, drawing on research situated in the Greater Toronto Area (GTA) that explores the intersections of migration, food, and family practices. As a first-generation immigrant to Canada from Japan and a parent raising a child in Toronto, Yukari's personal lived experiences are intricately tied to her academic inquiry. From a disciplinary perspective, mainstream health communication has historically leaned toward behavioural intervention, for example, designing campaigns to improve health literacy and shape individual choices related to public health. This framing often overlooks how systemic power structures shape whose choices are rendered possible. Inspired by a culture-centred approach in critical health communication (e.g., Dutta, 2018; Dutta et al., 2013), Yukari's work resists this reductionist impulse, instead foregrounding how discourses construct and perpetuate health disparities, including through ideas of culturally appropriate food.

Jennifer Brady is a Registered Dietitian and an Associate Professor in Women's and Gender Studies and the School of Nutrition and Dietetics at Acadia University in Nova Scotia. With academic roots in nutrition science, biology, communication, cultural studies, and feminist theory, her work is interdisciplinary and critical. As a White, disabled, settler woman born to parents of British heritage and raised in suburban Toronto, she brings a learned rather than lived experience of racialized and colonial inequities to her work. Her professional background in dietetics has provided firsthand experience with how institutional food systems and health professional practice often sidestep issues of race and racism while deploying culture and cultural foodways as variables to manage.

Our dialogue grows both from convergence and friction. While we share a deep passion for food justice and food security, our respective disciplines often talk past each other when it comes to culture. In dietetics, culture is frequently framed as a barrier to proper nutrition or as an add-on to enhance "compliance" with nutrition care recommendations (Thornton et al., 2022). It is treated as supplementary, rather than a fundamental element of food security. In health communication, culture is sometimes treated as noise or as a barrier to effective health messaging (Harrington & Record, 2024). In both disciplines, culture is often reduced to a static object rather than approached as a living, shifting terrain shaped by power. Rarely is culture recognized as something that continuously evolves through the daily doings of all people, not just the racialized or Othered (therefore "vulnerable") subjects of intervention. Instead, we argue that culture is a dynamic space we all co-habit and co-produce, rather than something one either possesses or must navigate.

In the sections that follow, we weave together critical reflection, disciplinary analysis, and sustained interdisciplinary dialogue. This reflective, collaborative method drew inspiration from Fink & Miller's (2014) dialogical inquiry into their lived experiences as scholars and active users of a digital media platform. Following their approach, we met three times via video conferencing and recorded the conversations to support iterative listening and reflection. In these exchanges, we first traced how the concept of culture operates across our disciplinary and professional practices related to food security, attending to both points of overlap and tension. Returning to the recordings, we collectively interrogated whether "culturally appropriate food" functions as a meaningful construct. We explored how culture might be reimagined in research and practice to advance not only the needs of those labelled "diverse" but the broader project

of equitable food systems. Our goal in this chapter is to emancipate the concept of cultural appropriateness from its current confines and reposition it as a vital, evolving element of food security for all.

Cultural food security

Yukari: To start, I think it is worth reviewing the existing discussions over cultural food security and how it relates to our discussion on cultural appropriateness. Since the late 1960s, food security approaches have shifted their focus from nation-states to households and individuals, and from addressing large-scale hunger crises (i.e., regional famines) to chronic household- and individual-level hunger and its links to poverty and social disparities. In the early 1980s, Amartya Sen (1981) argued that food insecurity is caused not by shortages in food supply but by inequalities built into food distribution mechanisms.

This reframing gradually moved the focus from food supply to access and equity, paving the way for rights-based frameworks. This approach emphasizes that access to food is not a matter of charity but of justice, grounded in basic human rights. Although the United Nations declared the human right to adequate food as early as 1966 in its International Covenant on Economic, Social and Cultural Rights (United Nations, 1966), the policy framework did not clearly establish cultural rights to food or the importance of culturally appropriate food. The early right-to-food approach focused primarily on access to food and the means of its procurement (Courtis, 2007), thereby rendering cultural adequacy an optional choice.

In 2008, Elaine Power wrote a seminal paper introducing the concept of cultural food security in the context of Indigenous foodways. She highlighted that understanding Indigenous food (in)security required attention not only to income or market access, but also to traditional food harvesting, intergenerational knowledge, and community sharing practices. Power argued that "traditional/country food" is integral to cultural health because it has "symbolic and spiritual value, and is central to personal identity and the maintenance of culture" (p. 96). She coined the term "cultural food security" as an essential layer of food security, shifting the conversation beyond nutritional intake and affordability to encompass food's social and cultural meanings. This resonates with the fourth pillar of CSFS's 5As framework, *Acceptability*, which refers to access to culturally acceptable food obtained in ways that uphold dignity and human rights (CSFS, 2025).

Jennifer: I want to note that Power's (2008) original concept focused exclusively on Indigenous people's food security, emphasizing the importance of ensuring access to food that aligns with Indigenous identity, values, traditional knowledge, and connection to land and water. Intriguingly, the concept of cultural food security was quickly adopted in research on immigrants and refugees. For example, Moffat et al. (2017) draw on Power's framework to explore how food insecurity is shaped by limited access to "familiar, fresh-tasting, less processed, and safe" cultural foods (p. 24). They highlight how high prices and lack of variety in cultural food options contribute to what they call *food nostalgia*—a longing for foods that remind people of home.

Yukari: These studies matter because they emphasize the cultural dimensions of food security, especially the emotional and symbolic aspects shaped by people's cultural milieu. However, what stands out to me is how quickly cultural food security came to be positioned as a unique need for immigrants and refugees. I am often puzzled by the literature on food security, which claims that "Access to cultural foods has a positive effect on the physical health and emotional well-being of immigrants and refugees" (Stansbury, 2025, p. 98). I have no doubt that migrant populations may experience unique challenges in accessing culturally appropriate food due to, for example, limited availability of key ingredients, financial constraints, or a lack of ethno-cultural supply chains. I do remember my early days in Canada, when I had to take a 50-minute bus ride to an Asian supermarket to buy a bottle of Japanese Worcestershire sauce. Further, for refugees and migrants forcibly displaced from their homelands, cultural food could be particularly important in preserving emotional, social, and intergenerational ties to their homes.

Nevertheless, I cannot help wondering: Why is this logic of cultural food security applied only to immigrants and refugees? Why is there an assumption that the cultural needs of all Canadian-born people are always-already met, just

because they were born and raised in Canada? Why don't we talk about how cultural food access supports *everyone's* well-being?

Also, here is where things get messy. In both academic literature and policy documents, terms such as "culturally appropriate," "culturally acceptable," and "culturally preferred" are used interchangeably, as if they mean the same thing. But they do not. Stansbury (2025) argues that "culturally acceptable" food often refers to what is tolerated or passable. "Culturally appropriate" food, on the other hand, implies alignment with people's deeper food values, practices, and identities. It is not just about what is eaten, but about what should be eaten, what feels right and nourishing.

This distinction matters because the current framing often treats culture as a matter of taste rather than a necessity. For example, the U.S. Centers for Disease Control and Prevention (2024) defines "culturally preferred foods" as "safe and nutritious foods that meet the diverse tastes and needs of customers based on their cultural identity. For example, people who identify with Muslim or Jewish religious traditions may want foods that are Halal or Kosher, respectively." Putting religion and culture aside, reducing these deeply meaningful practices to preference, I think, erases the power they hold in people's lives. In my ongoing research on Meals on Wheels food delivery programs across Ontario, one volunteer who delivers Kosher meals to Jewish seniors told me, "Kosher is not a choice or preference. It is the only food they can eat. It is the food they grew up with, the food they trust." That statement struck me hard. Cultural appropriateness is not about accommodating people's tastes or preferences. It is about honouring tradition, identity, and dignity; as the United Nations General Assembly (2020) states, everyone has the right to eat every meal with dignity.

Jennifer: Exactly. And what often gets lost in the literature is the fundamental difference between Power's (2008) original framing of cultural food security in the context of Indigenous foodways and its application to immigrants and refugees. For many Indigenous peoples, traditional foods are inseparable from their land, language, and community. In contrast, immigrant communities most often access cultural foods through commercial channels in the land of settlement, such as Canada. These are often imported market foods, rather than country foods, in Power's terminology. This distinction matters. It complicates simplistic calls for self-sufficiency, such as encouraging immigrants to grow their own food, which may not be feasible or even desirable for many people navigating complex post-migration lives in Canada with limited access to land or precarious housing. Obviously, not all cultural ingredients can be grown in Canada, even if seeds, land, and financial resources are available.

And yet, I think these nuances often get lost in public health frameworks, where cultural considerations are folded into checklists rather than deeply embedded into systemic design.

Yukari: Right. The concept of food sovereignty further complicates our discussion. In 1996, La Via Campesina defined food sovereignty at the World Food Summit as the "right of peoples to healthy and *culturally appropriate food* produced through sustainable methods and their right to define their own food and agriculture systems" (La Via Campesina, n.d., our emphasis). From this perspective, culturally appropriate food is not just a component of food security, but a right to define and control one's food systems. This includes the ability to choose, grow, and prepare food in ways that are meaningful to one's community, resisting the homogenization of diets under industrial and institutional systems. However, I do not think it would directly apply to diasporic communities in Canada with limited agency over land and agricultural systems.

Jennifer: Relatedly, we have to be cautious about equating "culturally appropriate" food with notions of "authentic" or "traditional" diets. For political reasons, the food sovereignty movement defines culturally appropriate foodways as synonymous with traditional foodways, which cultural imperialism and colonialism have marginalized. But people's foodways evolve as they move, adapt, and raise families in new places. What is "appropriate" is often hybrid, flexible, and deeply personal. When we insist on fixed definitions of cultural food as traditional food, we risk reifying tradition in ways that can be exclusionary or impractical.

Yukari: Regarding what you just said, we should pay attention to how foods have been culturally appropriated and repurposed, and how they will be in the future. You introduced me to Lenore Newman's (2017) book, *Speaking in the Cod Tongues*, which beautifully captures the wide regional diversity of so-called Canadian cuisine.

Newman (2017) shows how local chefs across Canada have integrated fresh, local ingredients into their cultural recipes, giving rise to several "Canadian" dishes, such as the BC roll, poutine, Nanaimo bars, pea soup, and *tourtière*. One important point Newman makes is that "cuisines collide and hybridize" (p. 88). I love the example of Canadian Chinese

dishes, which often adapt traditional recipes to local ingredients, blending cooking techniques and flavour profiles from multiple cultures. Think about ginger beef or chop suey; these are not artifacts of an "authentic" Chinese cuisine, but new creations born out of strategic culinary adaptation tailored to the Canadian palate.

Culturally Appropriate Food

Jennifer: Building on what we have discussed so far, let me reflect on how I have learned about the term "culturally appropriate food." I first encountered the term through dietetics training, usually in the context of working with immigrants or newcomers (i.e., immigrants who have been in Canada for less than 5 years). It was framed as a professional skill set, part of the broader "cultural competence" model that has become foundational across health professions, and defined as "a set of consistent attitudes, knowledge, skills, behaviours and policies required to effectively meet the needs of all the people we serve" (Nova Scotia Health Library, 2024). Sounds inclusive, right?

However, in practice, this framework is rooted in deficit thinking. Cultural appropriateness is treated as something "we" (the professionals whose culture is seemingly presumed to be the norm) provide to "them" (the newcomers whose culture is different from the norm), a gesture of support that assumes cultural needs belong exclusively to non-Western others.

And honestly, the implication was clear: cultural needs are something those not from here (i.e., newcomers) *have*, something we might accommodate if we have the time or resources. It was not framed as essential, more like a nice "cherry on top" of the more essential need for calories and nutrients.

Yukari: That phrase, "cherry on top," really sticks with me. It captures how culture is treated as optional rather than foundational. From a critical health communication lens, culture can never be a cherry on top. We understand culture not as something some people "have," and others do not, but as something all humans are immersed in, as the water fish swim in. We move through powerful cultural currents without always recognizing them. It is the very structure that shapes what we eat, how we eat, and how we value food.

Jennifer: Absolutely. If culture is like the water that we swim in, then the dominant understanding of food security is part of that same water, steeped in Western values and assumptions that feel natural and even neutral.

When I teach dietetics students, I strive to guide them through unpacking these assumptions. The idea that Canadian-born people are culturally "settled," that their food preferences are met because of a perceived sameness, is incredibly simplistic. It ignores the cultural diversity of settler Canada and pretends that food norms are neutral or universal. They are not.

Cultural diversity comprises national, regional, linguistic, and religious/spiritual heritage and identity, as well as across socio-economic classes, generations, and moral or ethical affiliations. This array of differences is overlooked in current thinking about what is "culturally appropriate" at an individual level, as is what we might think of as representational forms of cultural food security, such as those that could be included in public health messaging.

An illustrative example of these limitations, which I have explored elsewhere, involves two comic illustrations: *Atlantic Canada's Food Guide* and *Eating Well with Cape Breton's Food Guide*, both of which satirize *Canada's Food Guide* (Brady, 2022). These satirical responses highlight the cultural divide between what *Canada's Food Guide* depicts as healthy eating and the foods that are socially, economically, historically, and culturally meaningful to Eastern Canadians. These cultural divides are particularly relevant in dietetics, a field primarily concerned with advising others on what to eat. In this piece (Brady, 2022), I draw on the well-worn idiom "you are what you eat" to challenge readers: if we agree with it, what does it mean to tell people what to eat? Are we not, then, telling them who we think they should be when we tell them what they should and should not eat?

Yukari: "You are what you eat" is such an intricate idiom! Related to this, I also feel there is often a lack of recognition of diasporic foodways, especially among second- and third-generation immigrants or people of mixed heritage. In my research on *lunchbox shaming* faced by children of Asian immigrant backgrounds in Toronto schools (Seko et al., 2025; Seko et al., 2023; Seko et al., 2021), I learned that children's school lunchboxes reflect ongoing negotiations

among household members. While wishing to preserve traditional foodways, many parents adopted their lunch-making practices to accommodate children's evolving preferences. They incorporate new food items or add a "Western spin" to their traditional recipes. Rather than rigidly preserving traditions, these families approached lunch-making as a flexible, habitual practice responsive to the family's evolving tastes. Both heritage and habitual eating shape their food practices.

Vallianatos and Raine (2008) describe this beautifully, noting that "immigrant women value their habitual cuisines, and through continuation of their culinary practices, evoke and connect with 'home' and all the sensory and emotional experience that this conjures" (p. 317). And yet, they observed that non-recent immigrants more often speak of their foodways with nostalgia than recent arrivals do. There is a complexity there; cultural appropriateness is not just about maintenance but also about reinvention.

Jennifer: Echoing what you just said, I have supervised an international student from China as she completed her Master's thesis (Chen, 2024). For her Master's research, she used photovoice to explore the experiences of international Chinese students studying in Nova Scotia in accessing culturally familiar foods. What her work highlights is the effort, thoughtfulness, intention, and agency her participants exercised to intentionally expand what is culturally appropriate for them as young international students, most living on their own for the first time, in a food culture that differs in many ways. Contrary to much of the literature on dietary acculturation, which often positions newcomers as passive objects who lament the loss of "traditional diets" (e.g., the Healthy Immigrant Effect), her participants actively sought out new food experiences in crafting a sense of what is culturally meaningful food as individuals, as well as a community of international students whose Chinese identity and foodways varied with their home provinces and regions.

Yukari: My former master's student has also done an amazing project by cooking her Chinese-Jamaican grandmother's recipe (Chong, 2022). She drew inspiration from your article *Cooking as Inquiry* (Brady, 2011) and recreated her grandmother's cassava pudding using ingredients available in Toronto. Because it was during the COVID-19 pandemic, she delivered the pudding to her grandmother at a seniors' residence. Cassava pudding may not be the first dish that comes to mind when thinking about her grandmother's Chinese heritage, but it is an important, symbolic dish for her family. Cultural appropriateness is often complicated and deeply nuanced.

Looping back to our previous conversation on "traditional" and "authentic" dishes, so much of what is missing in the dominant framework is the notion that cultural appropriateness is not static. Although there is no doubt that food traditions play a key role in maintaining cultural identity in many diasporic groups, "culturally appropriate foods" are not a fixed set of dishes from "back home." They are shaped by migration, adaptation, intergenerational memory, and ongoing changes in everyday life. Reducing it to a "cultural foods" checkbox on menus flattens the deep emotional, relational, and political work that food does. Moreover, limiting it to immigrants and refugees overlooks the fact that cultural food security is not a special need but applies to all Canadians.

Jennifer: Agreed 100%. Although the meanings and experiences of culturally appropriate food and food security among immigrants and refugees are unique, I think the emphasis on these populations belies two important concerns that, in my view, require greater consideration in the literature on cultural food security. First is the conflation of culture, race, and the impacts of racism on how we understand "cultural appropriateness" and what we consider to be culturally meaningful historically and contemporarily. A second concern is that cultural foodways, and thus what is culturally appropriate, are diverse across socio-economic classes, regions within Canada, religions and spiritualities, and generations.

Yukari: Interesting! Let us unpack the first one. What comes to my mind is Psyche Williams-Forson's (2022) book, *Eating while Black: Food Shaming and Race in America*, which delineates a long and twisted history of food shaming against Black foodways.

Jennifer: Yes, Williams-Forson's work is notable for many reasons, one being that it elaborates the multiplicity and nuances of Black food cultures in the United States and, contrary to popular narratives that focus on food scarcity and deprivation, shows them to be sites of resistance, ingenuity, belonging, and joy historically and contemporarily. Throughout her work, Williams-Forson approaches food as an inherent site and means of communicating power. In *Eating While Black*, she specifically addresses food shaming, which emerges from assumptions that conflate all Black people in the U.S. with a singular cultural food heritage and an unchanging set of dishes, such as fried chicken and collard greens cooked with pork, often collectively identified as soul food. Dominant food culture widely derides these

foods as scraps—bits no one else wanted to eat—and, today especially, as unhealthy. These assumptions about the singularity of Black identity and food culture sustain systemic anti-Black racism, white supremacy, sexism, and classism expressed through the surveillance and shaming of Black people's food and bodies.

Yukari: What struck me most in *Eating While Black* is when Williams-Forson (2022) recounts a conversation with her family friend who said, "You're forgettin' something—all Black people ate scraps" (p. 23). It is a poignant reminder that gastro-surveillance does not just come from outside; it is often internalized. She traces how the long history of food shaming has led some African Americans to view traditional soul foods as unhealthy, unclean, or even embarrassing. She shows how class-based messages about "proper" eating told Black people they needed to correct their foodways to fit white norms, even though they were never fully accepted.

Jennifer: Williams-Forson's (2022) work also reminds us that when we essentialize food culture in pursuit of what is "culturally appropriate" or "traditional," we err in historicizing people and food cultures, freezing them in the past and rendering them irrelevant in today's globalized foodscape. Moreover, the emphasis on what is "appropriate" or "traditional," particularly when discussing racialized and immigrant populations, reifies an enduring Otherness and vulnerability. Essentialist ideas about what, for example, is "appropriate" for Black people to eat imagine Black people and Black food cultures as quaint relics, out of step with modern food cultures, and even uneducated about prevailing health and nutrition concerns. Luppens and Power's (2018) work similarly highlights this by exploring the disconnect between health promotion recommendations for Indigenous people in Canada to eat "traditional" foods and how Indigenous people themselves define that. Using photo-elicitation and interviews, the researchers found that what Indigenous people considered traditional foods included many items not featured in official health promotion materials, such as bologna!

Yukari: How about your second point about socio-economic, regional, spiritual, and generational diversity within the concept of cultural appropriateness?

Jennifer: To talk about this, I can share my personal experience. Food in Eastern Canada largely reflects its coastal geography and deep intergenerational poverty. Nova Scotia has been among the most food-insecure provinces for decades. I learned this when I moved from Toronto to Halifax, from a big multicultural city to a small city with relatively less racial and cultural diversity, and that is relatively distant from any other urban centres. This move highlighted for me the significant geographical differences among urban, semi-urban, and rural regions that necessarily shape the meaning of cultural appropriateness and the practicalities of accessing culturally diverse foods.

At the same time, relocating from Ontario to Nova Scotia taught me about the unique cultural and contextual diversity of foodways across Canada, even though I was already a dietitian schooled in "cultural competence." I was amazed by the rich food culture, deeply rooted in Eastern Canada's socio-economic, historical, geographic, and political context (Brady, 2022). My lack of appreciation for the diversity and situatedness of food and foodways across Canada underscores my point about the limitations of "cultural competence" and "culturally appropriate food," which, to me, obscures the need to talk about racism, colonialism, classism, and poverty.

Reflecting on Chen's (2024) work, my experience highlights the complexities of defining and applying cultural appropriateness in scholarly work and professional practice to advance food security and food justice. I think we need to grapple with what cultural appropriateness means for those who, like me, "come from away" *vis-à-vis* rural populations with rich cultural food traditions rooted in deep connections to the land and socio-economic oppression.

Yukari: I see your point. Culturally appropriate food certainly fosters a sense of belonging not just to cultural or ethnic identity but also to class, community, and history. We can recall Bourdieu's (1984) theory of taste here; taste is not just about personal preference; it is a form of social distinction. What we grow up eating, and how we learn to value certain foods over others, shapes how we see ourselves in relation to other people. As you said before, "healthy eating" in dietetics often reflects middle-class, Eurocentric ideas of how to eat right. However, for many, cultural foodways do not fit neatly into that frame, creating a tension between nutritional ideals focused on the nutrient content of foods and cultural identity, which may also prioritize nostalgia, joy, love, comfort, heritage, and belonging.

Jennifer: Indeed! And picking up on Luppens and Power's (2018) curious finding about bologna, there is an interesting cookbook created by a woman in Cape Breton titled *Full of Bologna: A Collection of Cape Breton Classics* that illustrates the importance of thinking about cultural appropriateness and cultural food security for all people (Goodyear, 2024).

Photographer Meagan McLeod compiled the cookbook with contributions from local residents, and it is sold at local pharmacies, with proceeds, ironically, going to food banks in the area. Cape Breton is a historically poor, working-class region of Nova Scotia. Bologna is a culturally meaningful food staple in Cape Breton, reflecting intergenerational poverty in that part of the province. *Full of Bologna* is a really good example of how social and economic class shape food cultures. While nutrition recommendations may describe bologna as nothing more than a sodium-laden, carcinogenic, processed meat product, for some, it connects them to who they are.

Yukari: Super interesting! I would add that culturally appropriate food also plays a role in nation-building. I have argued elsewhere (Seko et al., 2023; Seko et al., 2025) that we should not forget that national school food programs serve as an ideological state apparatus through which nation-states teach what national cuisine should look like, taste like, and how it should be eaten. As Moffat and Gendron (2019) argue, state-sponsored food projects, such as national school meal programs, can foster gastro-nationalism.

While the exclusion of cultural and religious minorities should never be accepted, I personally do not think it is a bad thing that school food serves as a vehicle for teaching and developing national, regional, or local food identities if done collaboratively. Schools always teach students a selective body of knowledge based on what the national or provincial governments consider important for their future citizens to learn. Why not teach them national, regional, or local foodways?

Jennifer: Yes, as your work on *lunchbox shaming* has shown, public school curricula, school food programs, and even individual teachers play complex roles in shaping school food cultures. I am thinking about the story shared by one of your participants, who attributed her short stature to the many lunches she skipped due to lunchbox shaming. Your work illustrates the vital connection between what has been the predominant concern of food security research, biological and nutritional inadequacy, and how this is shaped by racism and cultural bias. It is also an example of what some call the biochemistry of discrimination (Dong, Gee, & Beltram-Sanchez et al., 2023), which refers to how the social experience of discrimination literally gets under the skin and can have lifelong emotional and biophysiological impacts.

Yukari: Adding to considerations of race and class that we have already spoken about is gender, and even more broadly, intersectionality. Voluminous literature shows that foodwork is highly gendered, and that women tend to experience higher rates and severity of food insecurity in unique ways (Bellows et al., 2016; McIntyre et al., 2007). In the literature on cultural food security, gender is rarely considered, and when it is, the focus tends to be on gender-based divisions of foodwork and cultural labour. For example, although all foodwork is culturally rooted, research shows that among newcomer, immigrant, and refugee families, women tend to assume particularly important roles as guardians of cultural foodways within families and communities (Moffat et al., 2017).

Jennifer: True. In the work I have been involved in, women's roles in newcomer families pose particular challenges and require support. The women my colleagues and I interviewed said they may not drive or have access to a vehicle and had to spend a great deal of time navigating the city by bus, often with children in tow, to visit ethnic grocers scattered throughout the city.

Yukari: This kind of work on the gender-based division of labour is important, but what has yet to be explored in the cultural food security literature is how gender is "performed" or constructed through the doing of cultural food work both within immigrant and non-immigrant families, as well as intercultural and intergenerational families. Likewise, intersectional analyses that consider gender, race, class, migration, disability, and other aspects of identity and power are absent in this body of work.

Reimagining Culturally Appropriate Food

Yukari: Now we are arriving at a critical question: What could it mean to emancipate "cultural appropriateness" from the current "cherry on top" frameworks?

Jennifer: This question returns to my concern about "cultural competence" as the dominant framework in health professional practice. As I said before, cultural competence typically means knowing about Others (Stubbe, 2020)

and, specifically in dietetics, knowing what foods Others traditionally eat (Thornton et al., 2022). Throughout our conversation, we were concerned about culture being treated as a "cherry on top" of biomedically defined dietary and health interventions.

Thus, emancipating "cultural appropriateness" from dominant frameworks means, through our knowledge and practice, embracing a dynamic understanding of culture as intimately intertwined with power. In other words, and as I have written about throughout my work, socially just dietetic practice requires structural competence (Metzl & Hansen, 2014). That is, the knowledge, skill, and confidence to redress the systemic, upstream inequities that engender health disparities while inequitably distributing the means, including nutritious, identity-affirming food, to manage or recover from disease. Other dietitian-scholars, many associated with Critical Dietetics, have drawn on work by sociologists, anthropologists, geographers, and public health scholars who have elaborated critical and feminist perspectives on food security and health equity, including those at the CSFS.

Yukari: I would add that the idea that only "immigrants, refugees and newcomers" need culturally appropriate food, thus requiring special treatments, is a deeply colonial construct. Emancipating cultural appropriateness means recognizing that food choices of white, middle-class Canadians are also cultural, not neutral, not the default. Imagine if we asked, "What is culturally appropriate food for Anglo-Canadian seniors in long-term care homes?" instead of treating their meals as universal and everyone else's as "cultural." And what about people of mixed heritage?

Jennifer: Great questions! Drawing on another piece of work by Williams-Forson (2014), we might also ask how our approaches and actions to advance food security foster "cultural sustainability." Williams-Forson defines culture as an "active process" carried out through food and includes finding familiar foods, innovating new foods and food combinations, establishing food systems built on different cultural values and priorities, exercising culturally rooted understandings of health and well-being, all while "produc[ing] and reproduc[ing]" diverse cultural identities. To me, cultural sustainability offers greater conceptual flexibility than "culturally appropriate" and prompts consideration of what cultural well-being means in (re)thinking food security at the individual, household, and systems levels.

Dietitians working in long-term care homes and other institutional settings often design menus that meet nutrition guidelines for resident populations. Although I do not practice in food service, as a dietitian, I am concerned with our professional responsibilities to consider the meaning of food in people's lives beyond its nutritional value. Work by scholars in feminist food studies (Brady et al., 2025), including Williams-Forson, as we mentioned, urges us to explore this topic further. For example, in light of Williams-Forson's ideas, I would add to your questions by asking: how can "culturally sustainable" institutional food service reflect nutrition and health as dynamic, evolving cultural practices? I think potential answers to these questions must go beyond simply adding culturally diverse dishes to institutional menu offerings, which is how cultural differences are addressed today. Looking forward, this might mean treating all menu options as cultural artifacts rather than those perceived as not fitting traditional Canadian cuisine. What may aid this shift is a paradigm called "cultural humility," proposed in response to the limitations of cultural competence I mentioned earlier, though it has not yet been widely adopted across health professions education and practice. One important facet of cultural humility is its emphasis on reflexivity and ongoing learning rather than on knowing the other, as in the cultural competence approach. Cultural humility invites us to consider our own worldview as culturally rooted, which may de-centre "Canadian food" in institutional food settings (Lekas et al., 2020).

Yukari: Although I am not 100% sure about whether cultural sustainability can be an optimal framework for policy, I see your point and potential implications for practice. If we take culture seriously, it would transform what we expect from public institutions. Institutional food settings, like schools, hospitals, long-term care homes and prisons, must confront their colonial underpinnings. Rather than designing one-size-fits-all menus, these institutions can integrate a co-design approach with communities from the get-go. Imagine school lunch programs that not only meet basic nutritional standards but also actively reflect the foodways of the local community, whether that is South Asian dishes in Brampton or Acadian cuisine in Nova Scotia. It would mean asking *who decides what is on the menu*, and *who gets a say in defining the "appropriate" repertoire of dishes for school lunches*.

Jennifer: In this process, we must be careful about tokenism – it means we cannot just invite communities to "consult" after the menu has already been decided. True community-based co-design would require sharing decision-making power from the very beginning by asking communities what foods matter to them, how they want them prepared, and

whom they trust to prepare them. It also demands that institutions not only listen to but also be willing to relinquish control over what constitutes "healthy" or "appropriate" food. As Canada prepares to launch its national school food program, it can benefit from learning from collaborative food governance models in other countries, such as Brazil's School Meal Council, which ensures participatory decision-making at the local level (Silva et al., 2023).

Yukari: Yes, and in a related vein, we should reimagine food procurement and preparation systems. Institutions may claim it is too costly to diversify menus or to source specific ingredients, but those claims often reflect whose needs are treated as standard and whose are considered extra. Beyond that, we need to rethink how we approach food education. Too often, nutrition education frames white, middle-class food practices as the default and everyone else's as needing to adapt or improve. What if we flipped that?

III – Conclusion

Our interdisciplinary dialogue has drawn on academic literature, lived experiences, and our respective disciplinary backgrounds to trouble and invite further reflection on the meaning and potential of "culturally appropriate food" as a concept. Such interdisciplinary dialogue is crucial for sharing insights and highlighting gaps created by cross-purposes among disciplines, particularly those arising from different epistemological standpoints, such as those between the health and social sciences and the humanities. Our purpose has been to fundamentally rethink cultural appropriateness *vis-à-vis* prevailing discourse, which often essentializes, historicizes, and Others culture as a static feature of identity to be treated as a "cherry on top" of the presumed normalcy, singularity, and neutrality of middle-class, Anglo-European diets in applied contexts, such as health professional practice, institutional food services, and school food programs. More specifically, we reframe culture as a dynamic, relational, and fundamentally political process in which we *all* participate, shaped by and shaping intersecting systems of power, including race, class, gender, ability, and migration. Whether "cultural appropriateness" proves transformative or ultimately limiting remains to be seen. Nevertheless, we argue that any meaningful pursuit of food security, food education, or health professional practice must begin with a commitment to understanding that our frameworks are themselves deeply infused with cultural values and priorities.

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PART 2. POLICY AND PRACTICE

The chapters in **Part 2. Food policy and practice** examine how public policy can more effectively address food insecurity and transform food systems. They explore the design and implementation of policy instruments, highlighting the need for coordinated policy strategies rather than isolated interventions. Recognizing that evidence alone rarely drives policy change, the section also demonstrates how arts-based knowledge mobilization can reshape public narratives and build support for structural solutions to food insecurity. Finally, drawing lessons from Brazil's National School Food Programme, the section illustrates how comprehensive, rights-based public policies can simultaneously improve food security, public health, local economies, and social equity while informing Canada's emerging school food agenda.

4. Policy Instrument Considerations for Food System Change

ROD MACRAE AND CECILIA ROCHA

Abstract

Governments use a wide range of policy instruments to shape markets, influence behaviour, establish legal frameworks, and advance public policy objectives. Although many policy instrument choices and designs can support food system transformation, Canadian governments have, since the end of the Second World War, relied on a relatively narrow range of approaches, particularly for food demand management. This chapter examines the classic dilemmas of policy instrument choice and design, exploring the trade-offs that influence effectiveness across a range of intervention strategies. It argues that meaningful food system transformation requires coherent mixes of complementary policy instruments tailored to complex social, environmental, and economic objectives, rather than reliance on isolated or voluntary measures. The chapter concludes by examining why Canadian food system interventions are frequently poorly designed and implemented, identifying the institutional, political, and organizational barriers that continue to limit effective policy execution and systems change.

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I – Introduction

In any country, governments and public policies have a central responsibility to ensure food security. Governments can use a range of instruments to advance their policy goals, and these instruments can have direct and indirect effects by influencing social norms, markets, and social structures (Buckingham, Hole, Glaholt, et al., 2014; Buckingham, Hole, Morin, et al., 2014; Lessig, 1998). Instruments are often interconnected, especially when governments want to generate policy coherence and substantial change. The presumption is that instrument mixes are necessary, complementary, and purposeful, involving multiple targets, multiple actors, and both direct and indirect effects. A coherent and comprehensive implementation of the 5As of food security (see Chapter 1 in this volume) clearly involves using multiple instruments in a coordinated way. Therefore, a fuller understanding of these instruments and their design features supports policy advocacy efforts.

This chapter introduces a discussion of the main policy instruments governments use to effect change. It invites the readers to consider how these instruments can and have been used to promote food system change in Canada and elsewhere. Section II provides an overview of trade-offs and difficulties in applying policy instruments. Section III offers a more detailed discussion of a cross-cutting feature of instrument choice – targeted or non-targeted approaches – to provide some concrete examples of the options for policymakers. The chapter closes with concluding thoughts on future policy approaches for Canadians (section IV).

II – Instrument Choice Considerations

Table 1 provides a quick summary of key instrument choices governments can use.

Table 1: Instrument Choices

Element	Notes
Policy statements	Usually high-level statements, delivered or approved by members of governing parties. They set out policy goals but can, however, be more operational, and even very target-specific, with precise outputs, outcomes and timelines (Howlett, 2009)
Legislation	In recent Canadian tradition, legislation is broad and enabling and is revised infrequently, yet change typically requires the creation of new legislation and/or the modification of existing acts
Regulatory changes	Senior bureaucracies create regulations that provide additional guidance to legislation and draft regulatory amendments.
Regulatory protocols and directives	However, because regulations are also relatively vague, agencies must develop detailed regulatory protocols and directives to guide day-to-day activities and decision-making. These are not always public.
Other instrument choices and changes	Governments often use a range of other instruments, including programs, grants, educational mechanisms, and taxes or tax incentives, to support their policy statements, legislation, or regulations. When bundled together, they can be called a strategy or a plan.
Structural changes	The loci of decision-making often significantly affect how changes are made.

Voluntary vs. Mandatory

Voluntary programs are typically more acceptable to those being targeted. In theory, buy-in for these programs is higher, but voluntary programs generally attract those who have already moved significantly in the direction the program identifies. Those who usually contribute most to the problem or suffer most from the phenomenon are less likely to participate. Uptake rates can be high but do not necessarily engage a high percentage of the priority actors. If the instrument provides benefits beyond the individual participant (referred to in economics as non-excludable), the "free rider" problem arises: non-participants receive benefits without participating and often do not pay for them. Canada favours voluntary programs and awareness-building instruments such as the Environmental Farm Plan programs.

Mandatory programs, in contrast, involve all targeted actors, but participation usually faces significant resistance, and some actors actively try to "work around" the rules. Well-designed mandatory measures have historically helped to reshape the rules by which society functions, and actors adjust to those changes. The wider scope of these initiatives often leads to more fairness and faster rates of change because they involve the most reluctant or those most in need. Consequently, it is usually more expensive.

Contribution Agreements and Grants vs. Other Financial Supports

Contribution agreements and grants (commonly referred to as grants) are the dominant approach to program funding in the Canadian food system, practised by governments and private-sector donors. For governments, contribution agreements and grants have become more popular during the era of free trade agreements because they are generally

viewed as less trade-distorting and disruptive of market forces than other financing instruments. They are often competitive, voluntary, and application-based; frequently include cost-sharing arrangements with other food system actors, including recipients; and do not necessarily require ongoing financial commitments (one-offs). Several of the funding programs under Canada's National Food Policy fall into this category, including the Local Food Infrastructure Fund.

However, this also means they are not very targeted, do not necessarily address significant problems (few applications come from those most contributing to a negative situation), are not very tenable for long-term complex challenges, and their impacts are scattershot and not necessarily well identified. Cost-share arrangements usually favour those who already have resources and might even be able to undertake the work without the grant. Changes associated with grants can be temporary and lost when the contribution ends. Application procedures are typically onerous, as are reporting requirements, often taking disproportionate amounts of an organization's time and resources.

Constrained vs. Free Choice

Related to voluntary vs. mandatory, constrained and free choice are frequently considered in farm support programs. As private landowners, many farmers believe they should be able to do what they want on their land. Constrained choice has two different streams: dominant vs ecological. The dominant model, which most policies and programs have been designed to support, constrains choices through both economic relations (e.g., contracts that favour processors or retailers over farmers, often prescribing which management practices to follow) and narratives that define what good farming is. Choice can also be constrained by competing conventional institutional logics; essentially, once farmers are deeply reliant on a wide array of institutions to sustain their farming operations (a key part of the dominant approach is to reduce farm self-reliance and increase dependency), then competing rules imposed by these institutions narrow the management options of farmers (see also Baur, 2020; Hendrickson & James, 2005, 2016).

In contrast, ecological systems apply choice constraints in different ways. They discourage or prevent certain dominant practices and economic relations, but require different ecological systems to be implemented (with a transition period). Within those systems, producers can adapt requirements to each operation's circumstances, but they are not free to do whatever they want.

Performance vs. Practice

Performance-based supports reward documented improvements in the phenomena to be addressed (e.g., pollution reduction, economic activity, social equity). Practice-based supports reward actors for adopting practices likely to improve performance, though these improvements are rarely measured. For example, only a small number of studies have evaluated whether best management practices with fertilizer actually reduce fertilizer use over the long term. More problematically, many conclude they do not, and some argue that the consequence is that overall fertilizer use increases (Houser, 2022). Some believe that performance-based instruments are better; however, certain conditions must be in place for them to be viable and cost-effective. According to the Wallace Center (2003), these include:

- A realistic understanding of the causes of the problems, including the time frame over which they evolved, appropriate potential remedies, and the time over which those remedies may produce measurable improvements.
- A keen understanding of the socio-political environment for those undertaking the practices
- (for economists and policymakers) Valuations of the costs of doing nothing and the improvements.
- (for farmers and firms) How various practices relate to the problems.
- (for agencies) Information on actor actions and resulting positive outcomes.

Numerous implementation challenges stem from Canada's poor record of collecting performance data. The primary challenge is identifying performance indicators that are measurable at reasonable cost and clearly linked to farm and firm management decisions (Wallace Center, 2003). Programs that reward actors for measurable results must distinguish improvements resulting from management decisions from factors beyond the actor's control (Claassen & Horan, 2000). Setting quantifiable performance standards is often complex because site-specific farming and food system activities vary widely. For example, a farm with low sediment loss located next to a water body may cause greater environmental damage than a farm with high erosion located farther from the water body (Weersink et al., 1998).

A related part of this dilemma is point vs. non-point effects. When the problem can be isolated to a specific point (such as a particular polluter or economic actor), performance-based measures are often very appropriate. However, many food system problems are non-point problems. Many actors across a wide range of locations are contributing to food system problems. Monitoring them is almost impossible, and certainly very expensive.

Incentives vs. Penalties

Instrument design circles often debate whether those making changes should be incentivized or penalized for non-compliance with required behaviour. In complex areas, the discussion often centers on getting the right mix of the two. Incentives can include information, subsidies, grants, tax relief or reductions, supportive programs and marketing assistance. Penalties include regulations, taxes, punitive eligibility and operational rules.

Incentives are understandably popular, but do not always lead to significant uptake or improvements. Much depends on the incentive's size, the number of eligible actors, and how effectively it is delivered. Consequently, they can be expensive. Penalties often provoke hostility and avoidance strategies and may not always affect the biggest contributors to problems unless combined with targeted, mandatory measures. The implementation costs can be relatively low, but monitoring and compliance costs can be high if there is significant opposition.

Polluter Pays vs. Sectoral Actions

For environmental problems, there is significant debate about whether polluters should be forced to pay to prevent and clean up pollution, or if more sectoral support programs are warranted. This debate is somewhat connected to issues around point / non-point pollution. Point-source pollutants, such as those emitted by an input or food manufacturing facility, are easier to monitor, and their negative impacts can sometimes be (at least crudely) quantified. This makes it easier to require polluters to pay for both cleanup and pollution prevention.

Non-point source pollutants are, by definition, more diffuse and difficult to assign to specific actors. Soil erosion in a watershed is an example. Many farms contribute to erosion to varying degrees, depending on shifting temporal and spatial conditions. Farms may interact in ways that augment or reduce the impacts. In such cases, a sectoral or geographic approach is often more effective. Sometimes the polluter-pays principle can be partially applied to sectoral approaches through cost-sharing, cleanup, and pollution prevention.

Practices vs. Systems

Systems are more than combinations of individual practices. As it relates to agriculture:

- Systems constitute a fundamental and permanent change in land use. Ensuring long-term benefits with a

practice-based approach is difficult, since changes in practices are driven by a host of environmental and financial conditions, leading to substantial year-to-year variation.

- In a practice-based approach, growers pick and choose components, making the adoption process difficult to manage and monitor. While systems approaches also involve choosing between options, these options come in more integrated packages.
- Monitoring for compliance is very difficult in a practice-based approach. With systems, monitoring is not without its challenges, but it is more straightforward.
- Few practices are likely to reduce producer costs, whereas systems can generate greater profitability (e.g., organic food).
- Only systems adoption will achieve significant environmental improvements (see MacRae et al., 2014).
- Governments will frequently disseminate Best Management Practice (BMP) manuals that outline a mix of strategies that can actually be incompatible with one another. For example, some practices that improve soil moisture capacity and moderate moisture variability may increase Nitrous oxide emissions.

Although not well assessed, many current instruments are designed to support practice adoption, which can be useful for discrete problems with clear cause-and-effect relationships, but may also result in practices not meeting their intended success (Houser, 2022). Success may also be dependent on specific ecological conditions (Liu et al., 2016; Yates et al., 2012). For example, a current BMP being promoted in Canada, cover cropping, can increase soil carbon levels, but can also result (under certain ecological conditions) in elevated Nitrous oxide emissions (see also Arnason, 2022). Cover cropping is not a poor strategy. Rather, its chances of contributing to multidimensional success increase when it is part of multi-component systems change.

Most significant food system problems have multiple causes and effects, making practice-oriented instruments less helpful unless bundled with other system-change measures. The policy literature sometimes calls these systemic instruments (Wieczorek & Hekkert, 2012). The focus on BMPs often results from policy and program "convenience." This perception is reinforced by the belief that BMPs are less disruptive to production and that systems change is too difficult or costly. However, BMP adoption is often suboptimal (see also Brethour et al., 2007) as adoption does not lead to the intended outcomes (see also Houser, 2022), especially relative to the scale of the problem. This is in part because Canadian schemes are voluntary.

Rowing vs. Steering

Popularized by Osborne and Gaebler (1992), this analysis suggests that governments should focus primarily on steering and leave the rowing to the private sector. In a neoliberal interpretation, this effectively means reducing regulatory interventions and creating more space for private firms. A more regulatory-pluralist approach, however, sees the state maintaining a regulatory presence where private firms have historically failed to protect the public interest, and playing a steering role on complex issues that require pluralistic implementation. This trade-off is connected to the traditional economic narrative of "command and control" (rowing) vs. "market instruments" (steering). Economists typically favour the latter, ostensibly because they have lower administrative costs and they contribute to firm innovations. Economists typically see market-based instruments as more efficient because they do not "overpay" for a given action. For example, for producer subsidies, an auction scheme is preferred to a fixed rate. Neoliberal economists prefer pollution trading schemes over taxation schemes.

One area where a steering approach is more likely to succeed is food and culture. Although direct interventions are sometimes required to create greater equity, especially where firms are unlikely to act in the public interest, the state's role in a pluralistic capitalist democracy is generally to create supportive environments for positive individual and collective choices about food and culture. By altering the many factors that influence personal food/culture choices so

they better favour sustainability, justice, and health, positive changes can result. Government support for government food festivals is one example.

Elite Accommodation vs. Equity

A long-standing critique of many governments and their interventions is their inclination to accommodate political, economic and cultural elites at the expense of lower- and middle-income and historically marginalized groups. This has sometimes been justified as a "trickle-down" strategy, which assumes that favouring certain elite groups will spread benefits to others. However, the concept is highly contested, with some arguing that it just reinforces existing inequalities (Summers & Balls, 2015).

Other interventions have equity as a specific objective. However, the intervention's design can significantly determine whether it improves equity (McGill et al., 2015). Upstream interventions that focus on structural elements of the food environment, such as price, are more likely to have positive equity impacts than downstream interventions that focus on individual behaviour modification.

Regulatory vs. Precautionary Science [1]

According to Salter et al. (1988), "the science [policy-makers] seek is one that is capable of being justified and explained to a wide variety of publics.... It must facilitate clear choices. It must represent a body of evidence on which decisions can rest and be seen to be rational" (pg. 5). Regulators attempt to minimize the likelihood of concluding there is an effect when one does not exist, avoiding the possibility of "unnecessary" regulation (known in statistics as minimizing the possibility of a false positive or Type I error). However, this increases the likelihood of a different kind of error: concluding there is no effect when one exists (a false negative, or Type II error) (Tickner, 1997). The likelihood of a Type II error can be high, in some studies representing up to a 50 percent possibility (Schrecker, 1984).

Policymakers often seek a high level of certainty before acting (ie, do not practice precaution in the face of strong but not definitive evidence). However, our understanding of potential problems is usually evolving, especially in the early stages of their emergence, and definitive conclusions often take years to emerge. Rather than deal with scientific ambiguity, regulators generally treat the absence of evidence as evidence of absence. If a phenomenon has not yet been observed, then it does not exist. Although precautionary approaches are now widely used in various geographies, including Europe (see European Commission, 2017), Canada applies them inconsistently.

Single Jurisdiction Implementation vs. Leakage

Leakage occurs due to multiple jurisdictions in Canada and internationally (particularly with trading partners). An instrument deployed in one jurisdiction is often not widely deployed elsewhere, creating advantages and disadvantages for those actors in that jurisdiction. The most dramatic form of leakage occurs when the instrument is seen to add costs to business, and, consequently, a firm decides to leave one jurisdiction for another where the instrument has

1. Adapted from MacRae & Alden (2002). According to their typology, Canada pursues the most passive demand-side interventions, while the most active market development interventions are more likely to have the highest levels of r the development of organic farming.

not been deployed. No measures are in place to create equivalent conditions. Consequently, additional instruments that fall under the banner of border adjustments may need to be enacted to create a level playing field across borders. Many international agreements are meant to address leakage but are not always successful, and for many issues, no widespread multilateral agreements exist. However, leakage may also be countered, at least in the consumer goods sector, by the bad press that can accompany a firm's flight from regulatory requirements.

National vs. Local

In Canada, implementing a national program is often difficult because of jurisdictional divisions within the food system. Many national initiatives attempt to circumvent the constitution, often resulting in ineffective design and delivery and contestation from the provinces. These efforts can succeed, but often require extensive negotiation and sometimes federal arm-twisting, usually using spending power as a carrot. Of course, a national program presents the opportunity for relatively full and equitable treatment across the country on issues that affect all regions.

Many decision-makers believe in subsidiarity, the governance principle that decisions should be taken at the lowest level of government possible (where they can be competently performed). This is sensible when distinct local conditions warrant unique designs. However, local/regional/provincial differences often concern attitudes, ideologies, and resources, resulting in very uneven treatment across the country.

Front-Line (or Street-Level) Bureaucrats and Implementation Gaps

Front-line bureaucrats are the civil servants who are the "face" of the state with the citizenry. In the Canadian food system, this includes provincial farm extension agents, public health nutritionists and dietitians, food inspectors at every level, local planners and economic development officers with food responsibilities, and government grant administrators (or project officers). The general literature on these bureaucrats highlights their discretion in interpreting and implementing government programs (see Chang & Brewer, 2022). However, few, if any, studies have examined Canadian food system street-level bureaucrats and their role in implementation, in part because most food system programming is poorly evaluated. As a result, we know little about how they might augment or mitigate implementation gaps.

III – Explorations of Targeted and Non-Targeted Interventions

The challenges of designing food security programs that are not only effective (they accomplish what they were designed to do) and efficient (their benefits outweigh their costs), but also politically and socially acceptable, are many, and addressing them includes considering which instruments to use. This section explores considerations made when choosing between targeted (restricted to particular groups or regions) and non-targeted (unrestricted coverage) instruments. In combating food insecurity, targeted (selective) approaches focus instrument choice and design on those who are most in need. Success depends heavily on good data and the ability to reach the target population. Non-targeted (universal) approaches do not require the same level of precision to reach potential participants/beneficiaries.

As seen below, universal approaches are often more acceptable to the public, as they tend to reduce discussion of the extent to which targeted groups "merit" support. Typically, they are more expensive to implement in gross terms (due to their broader coverage). However, if the program reduces public expenditure in other domains (for example, food programs which reduce health issues), the costs may be reasonable relative to the benefits it generates. Targeted

approaches, though, are frequently more cost-efficient (Yang et al., 2005; Yang & Weersink, 2004). Table 2 provides some examples of food security interventions, divided into targeted and non-targeted initiatives

Table 2: Targeted and Non-targeted Initiatives

Targeted	Non-Targeted
Food stamps, conditional cash transfers, or food banks with means testing	Food labelling
Supplementary feeding programs for women, children, and other vulnerable groups	Nutrition education on radio and television and through other general media
Vitamin and mineral supplements for deficit populations	General fortification schemes (for example, for iodized salt)
Subsidized food sold only in certain geographic target areas	General food price policy, taxes, or subsidies

These targeted and non-targeted programs aim to reduce food insecurity. The case for targeting gains more support under fiscal constraints, since it tends to require fewer resources. Non-targeted programs are often prone to leakages, i.e., they may end up benefiting those who may not need the program. General food subsidies, for example, benefit both poor and non-poor groups in society. Because they allocate scarce public resources to non-poor groups, such policies are often perceived as inefficient (wasteful) and unfair. But that is not always the case, as we discuss below.

Designing an effective, fair, and efficient targeted program is a complex process, which starts with the targeting instrument to be adopted. There are three general types of targeting mechanisms that food and nutrition programs can use:

Individual Assessment (e.g. means testing or nutrition status)

Individual assessment is the most objective and accurate targeting mechanism in theory, but the most difficult and expensive to implement in practice. On the one hand, it is important for efficiency and equity reasons to minimize leakages to the non-needy; on the other hand, higher administrative costs can create efficiency and equity losses.

Group Characteristics (age, sex, disability, location, etc.)

Identifying common characteristics of 'vulnerable groups' as proxy indicators of need is simpler and cheaper than individual assessment and is less susceptible to incentive distortions. This classification method allows rapid, inexpensive identification of large numbers of beneficiaries, at the cost of an acceptable degree of leakage to the non-needy.

Self-Targeting (where needy individuals select themselves):

Self-targeting is (theoretically) cheaper and more accurate than most alternatives. Instead of identifying beneficiaries by (costly) individual assessment or (crude) proxy indicators, the poor are encouraged to select themselves. However, self-targeting often misses those most in need, as discussed above.

Besides the potential high costs of administering targeting mechanisms, two other important concerns must be addressed in designing effective programs:

1. Loss of political support from those excluded from benefits by targeting may undermine the program's political sustainability. That is, leakages under non-targeted programs may be the price of political feasibility.
2. Social stigma has been used explicitly as a self-targeting device. The idea is that whatever targeting mechanism is used would make non-needy individuals exclude themselves from the program (for example, people would be ashamed to go to food banks). But social stigma is often very debilitating for those who self-identify as needing a program, and often discourages participation among those who could really benefit.

Price Subsidies

The previous discussion on targeting suggests that general subsidies may be inefficient, as they would benefit both needy and non-needy groups. Targeted subsidies, on the other hand, can be very costly economically (e.g., cost of screening), politically (lack of political support from groups left out of the program), and socially (stigmatization of targeted groups). However, these costs may be minimized by adopting a general subsidy policy for items that appear more prominently in the consumption patterns of the targeted groups.

A subsidy to rice production, for example, will decrease the price of this product. Because of the lower price, people can now afford to buy more rice. Additionally, the lower price paid for rice increases available income. This is the income effect of the decrease in the price of rice. Hence, with the price subsidy, people can buy not only more rice but also more of other goods.

This analysis has some interesting implications for targeting. The income effect will be larger the more important the subsidized product is in people's original budget. Thus, if governments want to affect poor groups more than non-poor groups, they must choose to subsidize items that appear more prominently in the consumption basket of low-income groups. That means subsidizing staple foods (for example, rice or potatoes). A subsidy on meat (a luxury item in most societies), for example, will benefit the rich disproportionately more than the poor.

The income effect also suggests that a price subsidy on one good can increase consumption of another. Because of the income effect, a housing subsidy, for example, can lead not only to more housing, but also to greater food consumption (and lower food insecurity). Thus, a general (apparently non-targeted) subsidy policy can focus on items that disproportionately weigh on the budgets of poor groups (rental housing, public transit, etc.). Such policies will also have a disproportional (positive) effect on food consumption by low-income groups.

Ultra-Processed Food Tax

The income effect of a price change is also relevant when prices rise, including through taxation as a non-targeted policy instrument. Consider, for example, a tax on ultra-processed products, such as sugar-sweetened beverages. As the tax raises the price of the targeted product, consumers may purchase less of it because it has become relatively more expensive. At the same time, the price increase reduces consumers' real purchasing power. Depending on the magnitude of this income effect, spending on other foods may also decline. The important policy question, therefore, is not simply how much consumption of ultra-processed foods falls following the tax, but also how consumption of other foods changes—and which foods are most affected. For example, do consumers substitute healthier alternatives, or does the loss of purchasing power also reduce purchases of nutritious foods? Consider these two analyses:

Ultra-processed food as a luxury good for poor groups: Although consumption of ultra-processed food is growing worldwide, in many societies they may still be considered a "luxury" item. In such cases, we can expect poor populations to buy less ultra-processed food, and demand for other foods (substitutes for ultra-processed food) to increase. If these foods are a luxury good, they are also unlikely to be a major part of poor consumers' original budget. The income effect

of a price increase may be small. If the policy intends to discourage the consumption of these foods among poor groups, it may work well in this case.

Ultra-processed food as an important item in the diets of poor groups: A significant concern, however, is that these foods are becoming an important item in the diets of poor groups in many countries, including Canada. In such cases, the income effect of higher prices will be disproportionately greater among the poor, affecting not only their ability to buy these foods but also to buy other items. Furthermore, demand for these foods among the poor may be highly price inelastic. If so, an increase in the price of ultra-processed food will lead to very little change in the quantity consumed. Instead, consumers will compensate for the lower income effect by purchasing proportionately less of other items, including substitute food items.

The above analyses illustrate the complexity of designing policies and programs affecting low-income groups. It suggests the need for careful research to collect data on prices and incomes, as well as the diets and behaviours of different groups, and the desirability of complementary policies (such as a tax policy with an educational campaign).

IV – Concluding Observations

Although Canadian policy makers have had successes in numerous important domains (Lindquist et al., 2022), Canadian food system interventions are regularly criticized for poor design and ineffectiveness, and most instruments are rarely well evaluated. Instrument mixes, such as those required to advance a joined-up approach to food policy, are even more rarely assessed (MacRae, 2011; Skogstad, 2023), even though there is evidence that well-designed policy that considers the environmental sphere can be more effective than single interventions (Ekvall et al., 2016; Schader et al., 2014). Emblematic of the problem, one assessment of food security policy in Quebec found policy coherence to be relatively weak across a limited range of policy instruments and in need of improvement (Gaboury-Bonhomme et al., 2023).

"Ottawa is a town that is in love with policy ideas and bored to tears by policy implementation – by the details of how things actually get done" (Mulroney, as cited in Bergen, 2020). Former Clerk of the Privy Council Kevin Lynch (2022) describes the problem as weak policy execution, not only for new initiatives but also for delivering core functions. The Commissioner of the Environment and Sustainable Development (2022) has also highlighted the federal policy execution problem as it relates to climate change. This problem is particularly acute among elected officials, who typically lack the time, training, staff resources, or inclination to understand the details. Civil servants then handle the details, and senior bureaucrats are often equally uninterested, overly risk-averse, or resistant to new approaches. Elected officials have relatively limited oversight of implementation details in the Canadian governance system (see MacRae et al., 2012, for a case study of pesticide legislation).

Ottawa also discourages learning from jurisdictions with more sophisticated, longer-standing policy and program initiatives; as a result, Canadian public policy often lags significantly behind other jurisdictions (see Skogstad, 2023). Consultants are often asked to conduct international food policy scans but focus solely on like-minded jurisdictions, usually the US, Britain, Australia, and New Zealand. This policy myopia typically results in foregone learning from continental Europe and other regions. Similar attitudes prevail in most provincial jurisdictions, except Quebec, which has stronger ties to European approaches. Europeans, by contrast, do not appear to suffer the same kind of myopia and regularly follow Canada's policy developments on the municipal scene here, where more interesting interventions occur. For a more detailed analysis of the differences between European and Canadian approaches to food system governance, see Clément (2016). Related to this, former Privy Council Clerk Michael Wernick has written,

> ….. governments should always invest in ways to bring in fresher and more objective perspectives and advice, challenge incrementalism and orthodoxy and help the public service craft implementable options for governments to consider. We do not do as much of this in Canada as in other countries, and far less than we did in the past. Canada has allowed its supply chain of idea generation and debate about its public sector to erode to a pitiful state and has become more dependent on consulting firms for outside perspective (Wernick, 2023).

Beyond constitutional limits, poor policy design can stem from institutional, political, and organizational factors. Insufficient data may constrain the development of appropriate design parameters, while decision-makers may not adequately consider available evidence. Political ambivalence about aggressive interventions can also further weaken policy design, particularly because legislative mandates for sustainability, health promotion, and justice within the food system are often weak. This ambivalence reflects what Collins and Sossin (2019) describe as Canada's "perverse regulatory discretion," whereby decision-makers may forgo statutory requirements when applying them could disadvantage certain economic interests.

Insufficient budget allocations can similarly result in partial designs, inadequate execution, and limited monitoring and enforcement; in turn, weak monitoring can obscure design failures because opportunities for meaningful assessment are limited. Policy design may also be shaped by the "80/20 factor," whereby decision-makers focus on the relatively small proportion of actors responsible for most activity and potentially overlook the needs and circumstances of others. Expert and institutional biases can further narrow the range of solutions considered, including biases against policy instruments successfully employed in countries not perceived as comparable to Canada. Relatedly, decision-makers may favour conventional forms of agricultural capitalism and consequently privilege solutions advanced by established industry groups (see Gerbet, 2023, for an example related to genetic engineering). Institutional capacity and expertise can also undermine design when those responsible lack the skills or knowledge to address complex problems and are unwilling or unable to engage people with the necessary expertise (Lynch, 2022).

Further, governance organizations are often poorly equipped to address such "wicked problems"; according to Termeer et al. (2015), governments frequently lack reflexivity, resilience, responsiveness, and revitalization, and strategies for overcoming these limitations are not readily apparent in Canadian food system governance. Risk aversion can compound these challenges, discouraging approaches that are relatively untested, politically difficult, or potentially contestable under free trade agreements, while excessive internal compliance regimes may further constrain innovation (Lynch, 2022). Other organizational dynamics can also contribute to poor design, including self-interest, whereby interventions are designed to sustain work for designers rather than maximize effectiveness, and "design delusion," whereby managers overestimate their own design capabilities and alter work produced by junior staff that may in fact be superior.

Lastly, failure to meaningfully consult those most affected by interventions can generate unintended secondary effects that compromise policy outcomes, particularly when consultation is concentrated among the "usual suspects," often institutional or economic elites. Collectively, these shortcomings can produce significant gaps between policy intentions, policy design, and implementation.

Ultimately, advancing food security and food system transformation depends not simply on whether governments intervene, but on the instruments they select, how they design them, and how effectively they implement them. As this chapter demonstrates, policy choices involve important trade-offs, and their effectiveness and equity depend on the objectives, populations, and contexts involved. Effective policy therefore requires good evidence, attention to distributional and unintended effects, meaningful engagement with affected populations, and adequate resources for implementation and evaluation. Given the interconnected nature of food system challenges, meaningful transformation will ultimately require coherent mixes of complementary instruments that work together to advance food security, sustainability, health, equity, and justice.

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5. From Charity to Justice: Using Arts-Based Knowledge Mobilization and Research Creation for Effective Food Insecurity Solutions

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Abstract

Despite decades of evidence demonstrating that household food insecurity is fundamentally a consequence of inadequate income, Canadian governments continue to rely on charitable food assistance rather than structural policy solutions. This chapter argues that advancing more effective responses requires not only strong evidence, but new approaches to public engagement capable of shifting political will and policy. Drawing on theories of policy change, political economy, and knowledge mobilization, the chapter examines why food charity has become entrenched as the dominant response to food insecurity despite its well-documented limitations. It proposes arts-based knowledge mobilization (ABKM) and research-creation as innovative strategies for reframing public understandings of appropriate responses to food insecurity from charity to justice. Through the Hungry Stories project—a collaborative initiative involving scholars, artists, and writers that centres on a graphic novel for young readers—the chapter illustrates how creative storytelling can challenge dominant narratives, foster empathy, stimulate critical reflection, and encourage civic engagement around income-based solutions, including a guaranteed livable basic income. Reflections on the project's development also highlight the opportunities and challenges of interdisciplinary collaboration between researchers and creative practitioners. The chapter concludes that arts-based knowledge mobilization can complement traditional research dissemination by expanding public imagination, cultivating political engagement, and strengthening advocacy for structural policy responses that address the root causes of food insecurity rather than its symptoms.

I – Introduction

Food insecurity in Canada worsened for the third year in a row in 2024, setting another record and increasing by almost 70% since 2021 (PROOF, 2025). In 2024, 25.5% of the population, or almost 10 million Canadians, and 1 in 3 children lived in food-insecure households, compared to 15.9% or 5.8 million in 2021 (PROOF, 2025). Despite a significant accumulation of scientific evidence that food insecurity is a symptom of material deprivation, responsive to increases in household income, the rising rates of food insecurity show that the federal and provincial governments are not using that evidence to inform public policy to promote public health Rather, governments have relied on and supported charitable responses, notably food banks, which evidence shows are patently inadequate and ineffective (Loopstra, 2018). Most Canadians who are food insecure never visit a food bank, and even those who do are still food insecure (Tarasuk et al., 2020). Visits to food banks have soared as food insecurity has risen, and food banks have been unable to keep up with demand (Food Banks Canada, 2024). Food Banks Canada's 2024 Hunger Report declared that the need for their services is "spiralling out of control," with almost 30% of food banks reporting that they have run out of food. Others are restricting the amounts of food they give to clients and how often clients can visit (Food Banks Canada, 2024). A recent Maclean's article asked, "Why are Canada's food banks collapsing?" (Cameron, 2025). Food banks themselves are increasingly joining public health scholars, advocates, and practitioners in calling for governments to address low household incomes in response to this public health emergency (Food Banks Canada, 2024).

In this chapter, we lay out a theory of political change adapted from Baumgartner and Jones (2009) that identifies pressure points that could support a radical public policy shift in responses to food insecurity, from food charity to enhanced income security. We focus on income as a root cause of food insecurity that cuts across all 5As—availability, accessibility, adequacy, acceptability, agency—of the Centre for Studies in Food Security's (CSFS) framework for food security (Centre for Studies in Food Security, n.d.). We recognize that reducing food insecurity by addressing the adequacy of household income is just one dimension of promoting food security (McIntyre, 2011), a multi-faceted condition, which is the broader goal of the CSFS. We then describe a case study from our collaborative research project, Hungry Stories, that is using arts-based knowledge mobilization (ABKM) to increase public awareness and engagement about food insecurity and effective policy solutions, foster capacities for leadership and advocacy among the public, and envision new scholarly approaches for increasing public and political will for change.

II – Background

A direct import from the United States, Canada's first food bank was established in Edmonton in 1981 (Riches, 1986). Food banks spread quickly across the country in the 1980s. Early Canadian food banks were intended as a short-term "emergency" response to an acute economic downturn. Their founders expected them to disappear once the economy recovered and shifting political currents saw governments recommit to supporting citizens' well-being (Riches, 1986). Unlike the US, where food has been seen as the primary solution to hunger for almost a century (Poppendieck, 1995), Canada historically understood hunger primarily as a symptom of the larger problem of poverty (Power, 2017). For example, during the Great Depression, the Canadian federal government addressed hunger by mounting relief programs to increase household incomes (Power, 2017). In contrast, the US government set up its first food stamp program during the Great Depression, primarily to support agricultural producers, with the secondary benefit of feeding hungry Americans (Poppendieck, 1995).

Contrary to founders' expectations, the political and cultural context for discussions of hunger and food insecurity began to shift in Canada during the 1980s with the arrival of neoliberal[1] political ideology (Riches, 1986). The entrenchment of neoliberalism and the spread of food banks across the country coincided as governments reoriented to serve business rather than citizens' interests, while driving down tax rates, shredding the social safety net, and passing responsibility for formerly public services to individuals, families, and community organizations (Bryant, 2015). By the 1990s, food banks had become institutionalized (Tarasuk & Maclean, 1992) and the default or "common sense" response to hunger and food insecurity (Riches, 2018). Despite decades of data showing that food banks do little to redress food insecurity, the idea that they might—or should—close in favour of effective and equitable public policy had become almost unimaginable (Mendly-Zambo & Raphael, 2025; Power, 2017).

The founders of food banks may have been well-intentioned in the face of an economic downturn in the 1980s, when many Canadians were thrown out of work, and the cost of living was very high. Still, the persistence of food banks has had many unintended consequences (Hetherington & Power, 2025). By their very existence, food banks have inadvertently lulled the public into believing that hunger is being taken care of, taking the pressure off governments to implement public policies that address the root causes of food insecurity, namely inadequate income. In contrast, as a volunteer- and donation-driven community response to reduced government spending on social supports, food banks are emblematic of neoliberal social policy (Mendly-Zambo & Raphael, 2025; Riches, 2018). Food banks have also become a convenient outlet for the capitalist, industrial food system to dump its deliberate overproduction, while giving the appearance of addressing environmental goals and reducing hunger (Power, 2025). Ubiquitous food drives, from CBC

1. Neoliberalism is the underlying ideology behind contemporary economic and social policy, which deemphasizes the role of governments in ensuring the social and economic welfare of its citizens and reducing inequities, while emphasizing the responsibility of individuals to navigate the marketplace to meet their day-to-day needs

Radio's "Sounds of the Seasons" to school-based food drives, to numerous corporate food bank philanthropy campaigns (e.g., Purolator's "Tackle HungerTM," Walmart's "Fight Hunger, Spark ChangeTM"), seek to convince us that if we toss a few more tins into the donation bin, we can "help hunger disappear." These campaigns give corporations opportunities to use philanthropy to demonstrate that they are "good citizens," distracting us from more effective solutions that would involve tax reform and income redistribution (Livingstone & Natarajan, 2025). Perhaps even more insidiously, these campaigns help shape individuals into neoliberal citizens who take responsibility for the problem and no longer expect governments to address the root causes of food insecurity (Riches, 2002).

Scholars have become more vocal in condemning corporate involvement in food charity, including their roles in framing the issue of hunger and food charity as a response, influencing public policy, and contributing to food insecurity through low-wages, part-time precarious employment, and anti-union activities (Azadian et al., 2022; Caraher & Furey, 2022; Lambie-Mumford & Kennedy, 2025a, 2025b; Mendly-Zambo et al., 2023). But the idea that food banks are the solution to food insecurity is pervasive, strongly held, and pernicious. The widespread integration of food banks into public conversations about addressing hunger, ranging from children's early education to all forms of media, is an example of structural violence. Structural violence is defined as the invisible ways in which social inequality comes to seem "natural," hiding the social and political origins of structural problems such as poverty, hunger, racism, and sexism (Farmer, 2004; Scheper-Hughes, 2004). The existence of food banks, and the idea that food is the solution to hunger, has hidden poverty as the cause of food insecurity, choking off the possibility of other solutions, and constricting our political imaginations (Power, 2017).

Many scholars, public health advocates, and food banks agree: a basic income guarantee [2] that covers the costs of basic needs would effectively reduce poverty and thus food insecurity in Canada (Food Banks Canada, 2023; Ontario Dietitians in Public Health, 2020; Tarasuk & McIntyre, 2025). Public awareness of and support for a basic income guarantee has become widespread, particularly since a short-term form of basic income, the Canada Emergency Response Benefit (CERB), was implemented during the early years of the COVID-19 pandemic, providing economic support for millions of Canadians (Swift & Power, 2021a). Although the Ontario Basic Income Pilot (OBIP) was prematurely cancelled [3] in 2018, by a newly elected Conservative provincial government prevented the planned robust evaluation, including measurements of food insecurity. The project's careful design and the available evidence of its success have informed other basic income activities (Ammar & Laurin, 2025; Boadway et al., 2023; Ferdosi et al., 2023). These include a fully costed proposal to implement a basic income demonstration project in Prince Edward Island (Boadway et al., 2023) and a recent report from the federal Parliamentary Budget Office outlining the affordability of basic income (Ammar & Laurin, 2025). Though there is currently no sign that the federal or any provincial governments are planning to trial (again) or implement a broad-based basic income program, the national debate about its ability to reduce poverty and income insecurity (and thus food insecurity) remains lively (see, for example, the Coalition Canada basic income/revenu de base). The visibility of long lines of people waiting for food bank services, increasing strain on food banks' ability to meet demand, media critiques of food banks (including Brown et al., 2022; Khaki et al., 2023), the call from food banks themselves for government action (Food Banks Canada, 2023), dramatically high rates of food insecurity, and Canadians' interest in a permanent basic income (Swift & Power, 2021a) are among the signs leading us to believe that there may be an opportunity to shift public conversations about food insecurity solutions from charity to justice. For more information about a basic income guarantee in Canada and how to get involved in advocacy to support it, visit Basic Income Canada Network or the Basic Income Youth Collective.

2. Basic income guarantee is also commonly referred to as guaranteed livable income, minimum income, universal basic income (UBI), and more. These should not be confused with minimum wage, which is an hourly minimum wage set by provinces
3. See the UNESCO Inclusive Policy Lab for a brief overview of the OBIP. For more detail about the OBIP, see Swift & Power (2021b). For a qualitative assessment of OBIP's impact on food insecurity and food and eating practices, see Halpenny et al. (under review) and Ferdosi et al. (2023)

Knowledge Mobilization for Healthy Public Policy

Public health practitioners and scholars have been criticized for "naïve" ideas of knowledge mobilization (KM) for policy change to promote social determinants of health (SDOH) and healthy public policy (Clavier et al., 2022). Following the widespread adoption of evidence-based practice in clinical medicine, many in public health assumed that providing high-quality evidence would be sufficient to inform and shift public policy for population health. Over the 21st century, Canada has seen "vigorous and sustained" scholarly activity showing the ineffectiveness of food charity in addressing food insecurity and supporting income-based policy interventions instead (Mendly-Zambo & Raphael, 2019, p. 535).

Public health academics and practitioners tend to favour consensus models of policy change, which assume that policy change is based on rational cost/benefit analyses (Bryant & Raphael, 2016; Clavier et al., 2022). Given the well-documented ill-health effects of food insecurity and the demonstrated costs to the health care system, an economic analysis of the costs of food insecurity, especially for children, suggests more attention should be given to reducing it. A political economy approach, which considers the power of different sectors to influence the state and takes account of how neoliberalism and power operate through the political system, makes more sense of the current stagnation in policy change for social determinants of health (Bryant, 2015; Coburn, 2010; Lambie-Mumford & Kennedy, 2025a; Raphael et al., 2022).

Taking neoliberal political ideology into account, a political economy analysis suggests that governments put powerful corporate and business interests ahead of promoting the public good. In the case of food insecurity, this includes undermining the tax base that would fund robust income security programs and keeping minimum wage rates below a liveable wage (Lambie-Mumford & Kennedy, 2025a, 2025b). In this analysis, public health is ineffective at influencing government policy because it has aimed its knowledge mobilization efforts at policymakers. In the policymaking arena, evidence that population health would improve with increased government funding for adequate household income runs counter to the dominant political ideology that governments are problematic and should make way for "market solutions" to social problems like poverty and food insecurity. But since there are no market solutions to the problems of poverty and food insecurity, because companies can't sell goods and services to people without enough money, what used to be considered the responsibility of governments has been downloaded to community groups and individuals and their families. Activist public health scholars are increasingly recommending the mobilization of the public in democratic processes as the key to action on the social determinants of health (i.e., to put pressure on government to change public policy, counteracting the influence of the corporate sector) (Mendly-Zambo & Raphael, 2019; Raphael et al, 2022). Without an educated and mobilized public, governments can "avoid acting upon this evidence [supporting government action on the social determinants of health] since there are no political repercussions for doing so from an uninformed public" (Bryant & Raphael, 2016, p. 34).

A Theory of Policy Change

In their longitudinal studies of how public policies change, political scientists Baumgartner and Jones (2009) observed that political processes are usually characterized by stability and incrementalism, or very gradual change that does not disrupt the underlying model. Significant or dramatic change is less common but occurs when certain conditions are met (see Figure 1). These conditions include fundamentally questioning the current approach to an issue; the issue becoming more salient and attracting increased media and public attention; and new actors, such as the public, getting involved. Baumgartner and Jones (2009) add that major public policy changes are unlikely without public mobilization. Their research suggests that the public is best mobilized using stories that include both facts and emotional appeals.

Figure 1: "Large leaps" theory of change (Adapted from Baumgartner & Jones, 2009)

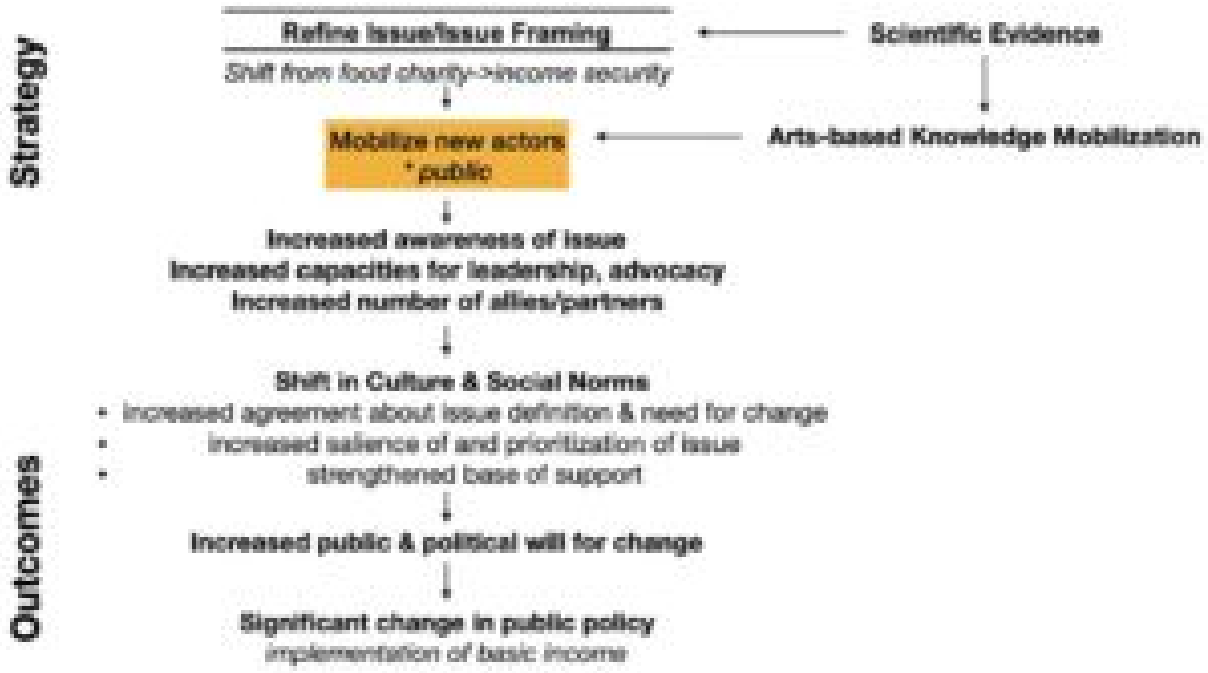

Figure 1: Proposed pathway from reframing food insecurity and mobilizing public support to implementing basic income policy.

In shifting public policy for food insecurity solutions, we have observed an ongoing shift in the media's presentation of the issue and policy solutions, a substantial advocacy movement for basic income, and increased public awareness. A key missing piece is a deeper understanding of the roots of the problem and mobilizing the public to advocate for change.

Shifting the dominant discourse about food insecurity to mobilize the public may be best accomplished using arts-based factual appeals to Canadians' sense of compassion, decency, and fairness. As political philosopher Martha Nussbaum (2013) explains, liberal societies that aspire to justice must inspire and sustain their citizens' commitment to difficult collective projects, including income redistribution, through the cultivation of appropriate public emotions—compassion, anger at injustice, hope for a better future—fostering "the ability to see full and equal humanity in another person, perhaps one of humanity's most difficult and fragile accomplishments" (p. 3). As we are currently witnessing in our own country and others, the related challenge is to keep in check more destructive collective emotions, such as fear and hatred of others, which lead to their denigration and subordination.

The prevailing charitable response to food insecurity plays to people's emotions by framing individual and corporate donors as "heroes" and "good citizens" who do "good works," especially during sentimental holidays that many Canadians celebrate, such as Christmas and Thanksgiving. Moreover, food drives typically frame donating to food banks as fun, community-based initiatives that provide easy, tangible ways to help others in need. However, this framing obscures the structural causes of food insecurity and offers little incentive for the public to engage in the harder, longer-term work of advocating for policy change. Following Nussbaum (2010), who recommends the arts and humanities to evoke public emotions for the public good, we expect arts-based knowledge mobilization will help inspire emotions such as compassion, anger, and hope. We expect those emotions, combined with factual information about food insecurity and its solutions, will help create positive change for justice so everyone in our society has the resources they need to feed themselves and their families.

Arts-Based Knowledge Mobilization (ABKM) for the Public

"Of course art cannot change the world alone, but it is a worthy ally to those challenging power with unconventional solutions" (Lippard, 2014).

We concur with activist scholars that it is time to focus on new knowledge mobilization (KM) strategies, to activate and engage the public in new conversations, to shift culture, and to support people in political advocacy for democratic change to address food insecurity. In our "post-truth" era of (mis)information overload, when "the simple presentation of facts falls upon deaf ears" (Duncombe et al., 2018, p. 2), effective KM activities geared to the public must be creative (Kukkonen & Cooper, 2019). As Parr and Zabala (2023) state, we "might begin simply by reactivating the human imagination, starting to envision alternatives that are more inclusive, compassionate, generous, and equitable" (p. 5). First, however, we seek to make strange or "defamiliarize" (Shklovskiĭ, 2021) the entrenched, taken-for-granted idea that food charity is an effective response to food insecurity. No better tool exists for this than art and literature (Greene, 2000). The arts "offer modes of sensuous, aesthetic attunement, and work as a conduit to focus attention, elicit public discourse, and shape cultural imaginaries" … to help us consider the urgent question of "'how might the world be organized differently?'" (Loveless, 2019, p. 16).

Art can counter structural violence by exposing "the norms and hierarchies of the existing social order … [and] can give us the conceptual means to invent another, making what had once seemed utterly impossible, entirely realistic" (Hardt & Negri, 2009, p. 179). The arts can promote public engagement with social issues by "evoking emotions, provoking wonder, critical reflection, and reflective action" (Stammen & Meissner, 2022), and can facilitate individual, collective, and community capacity building (Dwyer et al., 2008). Activism that uses artistic approaches (aka "artivism") has been found to be more effective in generating awareness, engagement, and receptiveness than conventional approaches, and is also more likely to be memorable and result in action on issues (Duncombe & Harrebye, 2022).

ABKM (or arts-based knowledge translation, ABKT) for the public is similar to art-based activism in its goal of "catalyzing dialogue, awareness, engagement, and advocacy to provide a foundation for social change on important societal issues" (Kukkonen & Cooper, 2019). ABKM has become an important tool for translating research on health and urgent social issues (Boydell et al., 2012; Kukkonen & Cooper, 2019), though to date, no documentation shows its use for food insecurity policy change.

ABKM is one of four sub-categories under a broader umbrella of "research-creation" (Chapman & Sawchuk, 2012). "Research-creation" is the Canadian academic terminology for a concept similar to those recognized in other nations and contexts by different names, such as arts-based research, creative research, and practice-based research. Here it is defined by the Social Sciences and Humanities Research Council, the primary research funding agency for the humanities and social sciences, as "an approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation" (SSHRC, 2025). SSHRC's definition suggests that research-creation is "a hybrid formation, part research, part creation, part experiment" (Loveless, 2019, p. 6).

In the case study that follows, we share our ABKM project, Hungry Stories. Our aim with this project is to contribute to policy change to address food insecurity. Although we cannot directly shift policy, we aim to support a range of actions to defamiliarize food charity as an effective response to food insecurity and catalyze policy change by increasing public awareness, leadership capacity, and advocacy. We hope to add to the growing momentum to reduce poverty and thus, food insecurity, namely through a permanent national guaranteed livable basic income program.

III – 'Hungry Stories' Case Study: History of the 'Stuffing the Bus' Graphic Novel and the 'Hungry Stories' Project

Back in 2019, Jennifer Black took note when her two elementary school-aged children came home with yet another

announcement of a school food drive for a local food bank. Although her children attended a community-oriented school known for its social action initiatives, the school food drives were presented unproblematically as an unqualified "good thing" to do that would presumably redress food insecurity in the community while teaching students about benevolence and charitable giving. Jennifer emailed Elaine to ask whether she knew of any resources to help children, teachers, and parents think more critically about food drives and the roots of food insecurity. Knowing that Elaine has been an advocate for basic income, Jennifer exclaimed in her email, "There's not yet a 'basic income guarantee' advocacy day associated with the canned goods collection!"

Jennifer's email struck a chord with Elaine, whose own child had also been invited to participate in multiple school food drives. Elaine was dismayed by a new children's book, Emma and the Food Bank, a picture book about a blonde, blue-eyed, six-year-old girl who accompanies her mother to the grocery store to buy food for a food drive. The book promised to be a "fun," "educational" way to help "children understand how food banks work and why giving is important," oblivious to its white, middle-class saviour ethos and ignoring the structural origins of food insecurity. Elaine proposed to Jennifer that they try to write their own children's book. How hard could it be to write something better than Emma and the Food Bank?

Adding Jennifer Brady to the team, the three professors, all with nutrition and food studies backgrounds and an interest in critical research, but no experience of publishing creative writing, soon found that writing a children's book that would engage young people in issues about food insecurity was a LOT harder than they imagined! After a few false starts, they decided they needed someone with creative writing expertise. Elaine reached out to Dian Day, a published novelist, mother, grandmother, and, at the time, doctoral student in Cultural Studies at Queen's University in Kingston, Ontario, who shared the team's critique about food banks. Taking a few seeds of ideas from the original project, Dian started over, imagining a heartfelt story about a friendship between Kit and Mila, two middle-school friends, one of whom is hungry. Dian then reached out to artist Amanda White, a graduate of the Queen's University Cultural Studies doctoral program, whose artistic and scholarly work lies at the intersection of art, environmental and cultural studies, with a focus on plants and food. Together, the two creatives brought the narrative to life as a graphic novel, a form with a unique visual language that combines text and image to tell stories differently. Graphic storytelling has a long history in activist visual culture and offers a form that is appealing to young readers.

Unlike the professors' original story, which was laden with facts, Dian and Amanda's graphic novel doesn't lecture or preach. Instead, it was crafted to touch hearts and minds, and to foster kids' innate sense of fairness and justice. Unlike Emma and the Food Bank, no "hero" or "saviour" makes everything right with an act of kindness. Dian and Amanda want us to think about what it might be like to be a middle school kid who is food insecure, facing food drives at their school with dented tins and castaway food long past its best-before date. Early in the story, Mila is taken aback when her new friend, Kit, comes to visit and gobbles down three bananas in quick succession. Mia thinks her friend is rude and is puzzled that her mom, who clearly understands Kit's behaviour differently, simply offers Kit more food. Over the course of the novel, as Mila and Kit play together and feed the neighbourhood stray cats, Mila begins to understand Kit, learns about the limitations of food banks, and together, the two friends consider how to create systemic change. Emotionally sophisticated and sensitively rendered, Dian and Amanda's story gently invites the reader to ask questions.

To our knowledge, the graphic novel has no precedent in English-language children's books about poverty and hunger. Dian's recent content analysis of 22 books for middle school readers (Day, 2024) finds that, almost without exception, the child's hunger is presented as the result of a parent's bad choices or unlucky life circumstances. In most cases, the parent, almost always the mother, demonstrates "bad parenting" by engaging in a variety of activities that reproduce harmful stereotypes of people living in poverty. The food-insecure child protagonist, by contrast, is presented as having "superhero" characteristics: looking after the family and finding food for them, while keeping up their grades at school and demonstrating special talents. The solutions presented to resolve hunger always include charity and kind strangers; sometimes community charitable resources (such as food banks); rarely government services (such as food stamps, in the US context); and never systemic or structural reform. While there is increasing emphasis on publishing children's books with long-neglected content such as race and ethnicity, sexuality, disability, and neurodiversity, it appears that children's literature about class, poverty, and food insecurity is stuck in the past and largely formulaic. Dian's analysis shows an emphasis on middle-class values of respectability and hard work, and a reproduction of stereotypes and

neoliberal tropes about personal responsibility for poverty and its solutions. The messages that these stories convey about poverty, food insecurity, and its solutions are highly problematic and deeply concerning (Day, 2024).

In crafting the graphic novel, Dian and Amanda carefully considered issues of representation and social justice. They consulted with the team about these issues, which could potentially affect the book's distribution given the political climate and alarming stories from the United States, particularly around conservative censorship of children's books. However, given the book's purpose to challenge how social inequalities have been denied in dominant narratives around food security, it is crucial that we do not self-censor on other inequalities. We are keenly aware of the need to redress other gaps in children's publishing, including the lack of diverse representation of all kinds, and are committed to centring the principles of social justice in our decision-making. We were thrilled in the fall of 2024 when Second Story Press, a Toronto-based press that describes itself as publishing "feminist, inclusive, and empowering" books for adults and young readers, decided that they loved the story too, and would publish it in spring 2026.

Over years of working together to support the graphic novel's development, the group began to imagine additional activities and to think of the larger work as the "Hungry Stories" project. Other components of Hungry Stories include educational resources and other kinds of arts-based knowledge mobilization around food insecurity, such as an art exhibit and arts-based activities in schools, potentially in conjunction with food drives. We also plan to evaluate the impact of the graphic novel and to write more about our experiences of working as a team of feminist scholars, artists, and activists, including the opportunities and challenges of working across academia and the arts. Reactions to public presentations about the work-in-progress have been overwhelmingly supportive, and the book is eagerly anticipated.

Reflections

While the team always believed in the power of the graphic novel to tell a new story about food insecurity, finding a publisher who saw its potential and was willing to break with the typical approach to children's stories about poverty and food insecurity took time. We never had any guarantees that we would find a publisher. We considered self-publishing, but preferred an established publisher who would handle marketing and sales, ensure editorial care, and help us achieve our goal of widespread distribution and social impact.

None of us had any previous experience publishing a children's book. Along the way, we learned that children's books are a particular specialty in the publishing world, and graphic novels are another. After Dian developed the story, with its quirky and lovable characters, and Amanda drew the exquisite illustrations, we simply had to trust that this graphic novel, which we all love, would eventually find the right publishing home. Second Story Press accepted the manuscript about five years after Jennifer Black originally reached out to Elaine. During those five years, we met regularly, but the professors had little "output" to put on our annual reviews, other than a few small grants and conference presentations. All through the pandemic and myriad life events, the team members supported each other through ups and downs, and stuck with the project, feeling our way along, a "slow feminist" effort to resist the dominant trends of the "individualist, careerist, and bibliometric" neoliberal university (Loveless, 2019, p. 9). Although we embraced a slow feminist approach for this project and cannot imagine a shorter time frame for its development, the time involved may impede some researchers.

Along with finding a publisher, another challenge was overcoming the cultural divide between the social sciences and the creative arts in recognizing different team members' contributions to the project. The concept of "authorship" differs in the health and social sciences, and academia more broadly, from that in professional creative fields. While Jennifer's initial email sparked the idea for a children's book and led to a collective desire to create a justice-oriented food insecurity resource for children, the team commissioned an artistic team to create it. Dian is the author of the graphic novel, and Amanda is the artist whose images combine with the text to make the story. The academics supported the creation of the work in multiple ways, primarily through funding, research support, and cheerleading; they cannot own or claim credit for Dian and Amanda's creative processes or the results. The Hungry Stories Team's contributions will be featured in the back matter of the graphic novel, but this is a different model of recognition than in much (though not all)

of the academic world. It is very common to have five co-authors on an academic manuscript, such as this book chapter, even though individual roles and the extent of individual contributions may differ. This model doesn't hold in creative work, and we wrestled with this cultural difference for a while. Ultimately, we recognized that the book is a creative product; since the academic team members were not part of the creative process, we needed to follow the norms of the creative arts and literary publishing.

Arts-based knowledge mobilization and research-creation require working with professional creatives to generate outputs for wider audiences. Crucially, academics undertaking ABKM must communicate openly and understand how creative fields operate, each with its own professional standards, best practices, and payment schedules. For example, researchers who want to engage with visual artists in Canada can consult the CARFAC (Canadian Artists Representation/ Le Front Des Artistes Canadiens) schedule for minimum fees, copyright information, and more. Similar organizations exist in the literary arts, theatre, and other artistic fields. When collaborating across disciplines, we recommend discussing authorship, recognition, intellectual property, disciplinary conventions, workload, and member contributions early on and in writing. It may also help to check in often throughout the project to ensure everyone's needs and expectations are clearly articulated and understood by the team.

IV – Conclusion

Given the demonstrated failure of scientific evidence to inform public policy change to reduce poverty and food insecurity, scholars and activists who care about food insecurity and other health inequities might consider new ways to influence public policy. Using research-creation and arts-based knowledge mobilization strategies, we aim to defamiliarize food charity as the "automatic" response to food insecurity, shift culture and social norms, and support the development of critical, upstream thinking about food insecurity and poverty, beginning with children and youth. We hope our efforts will help implement effective income-based solutions for food insecurity. We also aim to contribute to a growing movement of collaboration between artists and health and social scientists for more effective knowledge mobilization, to help create a more just society.

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6. How Brazil's National School Food Programme Aligns with the Six Principles Announced in Canada's first National School Food Policy

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Abstract

Canada's first National School Food Policy, released in 2024, establishes six guiding principles for school food programmes: accessibility, health promotion, inclusivity, flexibility, sustainability, and accountability. Many of the organizations and advocates who championed the Canadian policy drew inspiration from Brazil's National School Food Programme (Programa Nacional de Alimentação Escolar—PNAE), one of the world's oldest and largest school food programmes. This chapter examines how PNAE aligns with these six principles and explores the challenges of implementing a universal school food programme across a large, regionally diverse country. Drawing on PNAE legislation, official policy documents, and implementation guidelines, we assess both the programme's institutional design and its operation in practice. We show that PNAE reflects Canada's policy principles through its rights-based, universal approach; integration of food and nutrition education; provision of culturally appropriate meals; procurement policies that support family farmers and traditional communities; and extensive governance and accountability mechanisms involving government agencies, nutrition professionals, and civil society. We also identify four persistent implementation challenges: regional inequalities in institutional capacity and resources, fiscal constraints and shifting political priorities, bureaucratic procurement systems, and conflicts with powerful commercial interests. Despite these challenges, PNAE has demonstrated remarkable resilience over its 70-year history, supported by strong legislation, multi-level governance, and sustained public engagement. We conclude that PNAE advances the five dimensions of food security—availability, accessibility, adequacy, acceptability, and agency—while illustrating how school food programmes can simultaneously improve child nutrition, strengthen local food systems, support family farming, and advance broader social, environmental, and economic policy goals. Brazil's experience offers valuable lessons for implementing Canada's emerging national school food programme

I – Introduction

Canada released its first National School Food Policy in June 2024. This followed years of campaigning and lobbying by civil society organizations and actors from the food security movement and the academy. The Canadian policy aims to increase consumption of nutritious foods, promote health equity, help establish lifelong healthy eating behaviours, and strengthen connections between local food systems, culture and the environment. It establishes six principles to guide the implementation of school food programmes nationwide. As described in the policy (Canada, 2024, p. 14), the programmes must be accessible, health-promoting, inclusive, flexible, sustainable, and accountable (see Table 1).

Many of the organizations and actors who championed a National School Food Policy in Canada drew inspiration from programmes around the globe, including the National School Food Programme (Programa Nacional de Alimentação Escolar – PNAE) in Brazil. Established in 1955, PNAE is not only one of the oldest but also one of the largest school food programmes in the world, covering around 40 million students enrolled in all stages of public schooling, from daycare

centres to the end of high school (FNDE, 2025). Over the years, this programme has become an important tool for combating child malnutrition and promoting local food production and small-scale farming.

Table 1: Principles in Canada's National School Food Policy

PRINCIPLES	DESCRIPTION
Accessible	Children and youth can participate in school food programmes without stigma or barriers.
Health promoting	Food served is consistent with healthy eating recommendations in Canada's Food Guide, and children and youth are supported in developing healthful food-related behaviours and attitudes, as well as food and nutrition knowledge and skills.
Inclusive	Children and youth have access to culturally appropriate, relevant and inclusive school food programmes that engage students and the broader community.
Flexible	Food is locally sourced where possible and reflective of local and regional circumstances.
Sustainable	Programmes are designed to be environmentally sustainable and adequately resourced
Accountable	Consistent and transparent monitoring and evaluation to ensure that programmes are achieving policy objectives

In this chapter, we examine how PNAE aligns with the six principles outlined in the Canadian policy. We examine both how the programme is supposed to work (according to the vision and legislation governing PNAE) and how it operates in practice, highlighting key difficulties encountered in the day-to-day implementation of the school food programme across municipalities in Brazil. In our conclusion, we reflect on how PNAE addresses the 5 As of Food Security (availability, accessibility, adequacy, acceptability, and agency), as proposed in the definition pioneered by the Centre for Studies in Food Security at Toronto Metropolitan University. We also reflect on the programme's resilience as it completes 70 years of implementation. Understanding PNAE in Brazil may inspire those dedicated to successfully implementing the School Food Programme in Canada and elsewhere.

II – How Brazil's PNAE Aligns with Canada's School Food Policy Principles

Our analysis is based on the law governing PNAE since 2009 (Brazil, 2009), as well as the many official resolutions and technical notes issued alongside it. The 2009 legislation declared school food a "right of students in the public school system" (FNDE, 2025). [1]. It establishes six guidelines for the programme's implementation. We note that PNAE guidelines reflect many of the principles stated in Canada's 2024 policy (*in brackets*):

I – the use of healthy and adequate nutrition, including the use of varied, safe foods that respect culture, traditions and healthy eating habits, contributing to the growth and development of students and improving school performance, according to age group and health status, including those who require specific attention (*health promoting and inclusive*);

II – the inclusion of food and nutritional education in the teaching and learning process, which permeates the school curriculum, addressing the topic of food and nutrition and the development of healthy living practices, from the perspective of food and nutrition security (*health promoting*);

1. Much of the information provided in this section is from the official website of the National Fund for the Development of Education (Fundo Nacional de Desenvolvimento da Educação - FNDE), an autarky responsible for managing educational policies under Brazil's Ministry of Education

III – the universality of assistance to students enrolled in the public basic education network (*accessible*);

IV – community participation in social control, in monitoring the actions carried out by the States, the Federal District and the Municipalities to guarantee the provision of healthy and adequate school meals (*accountable*);

V – support for sustainable development, with incentives for the acquisition of diversified foodstuffs, produced locally and preferably by family farming and rural family entrepreneurs, prioritizing traditional indigenous communities and remnants of quilombos (African-descent communities) (*flexible and sustainable*);

VI – the right to school meals, aiming to guarantee food and nutritional security for students, with equal access, respecting the biological differences between the ages and health conditions of students who require specific attention and those who are socially vulnerable (*inclusive*).

PNAE is part of the National Food and Nutrition Security System (SISAN), an institutional framework that promotes participatory governance and policy integration at all levels of government (federal, state, and municipal). SISAN is guided by the principle of the Human Right to Food and the concept of Food and Nutrition Security (FNS), defined as the realization of the right of all to regular and permanent access to sufficient amounts of quality food, without compromising access to other essential needs. This access must promote healthy food practices and respect cultural diversity and environmental, cultural, economic, and social sustainability (Burlandy et al., 2023).

Since 1994, the federal government has transferred funds to municipalities and states to help cover the cost of student food in public schools. Municipalities and states complement federal funds to implement their own school food programmes, in accordance with the legislation's guidelines.

As we consider funding for school meals, we must note that, despite plans to increase student enrollment in full-time schooling (a minimum stay of 7 hours at school sites), to date, most students in the Brazilian public system remain in school for just 4 hours/day. The values of federal transfers per student/per day in 2023 were as indicated in Table 2[2].

Table 2: Federal Transfers for School Food Programmes (2026) *(R$ student/day)

TYPE OF SCHOOLS	VALUES
Youth and Adult Education	$0.57
Primary and Secondary Education (general – half days)	$0.57
Primary and Secondary Education (general – full days)	$1.57
Primary and Secondary Education (Indigenous and Quilombolas)	$0.98
Pre-School Education (general)	$0.82
Pre-School Education (Indigenous and Quilombolas)	$1.57

Here, we have organized our analysis to address how PNAE meets each of the principles established in Canada's policy.

Is PNAE accessible? Can children and youth participate in school food programmes without stigma or barriers?

PNAE is a universal programme, available to all students (just over 40 million in 2024) from pre-school to high school graduation, in the public system throughout Brazil. Because all students can access the programme during regular school hours, children and youth face no stigma for participating.

Concerns with accessibility to the programme have been associated with low school attendance of children living in poverty or with high dropout rates among youth from low-income families. Two other programmes in Brazil have attempted to reduce these problems. Created in 2003, the Bolsa Familia (Family Grant) is a conditional cash transfer programme targeted at families in extreme poverty (Rocha, 2016). One condition of the Bolsa Familia programme is

2. 1.00 CAD = 3.64 BRL on April 17, 2026

consistent school attendance. Another programme encourages youth to remain in and graduate from high school. The Pé-de-Meia programme, launched in November 2023, provides a financial incentive through a savings account to youth who complete each year of education and graduate from high school (Brazil, 2023a). Both Bolsa Família and Pé-de-Meia support school attendance and, consequently, access to adequate and healthy food offered through PNAE.

Is PNAE health-promoting? Is the food served consistent with healthy eating recommendations, and do children and youth have support in developing healthful food-related behaviours and attitudes, as well as food and nutrition knowledge and skills?

Under PNAE, school menus must respect students' nutritional needs, local eating habits, and food cultures, and must always comply with the Ministry of Health's guidelines on promoting health through nutrition.

Since 2020, school meal preparation has followed the most recent Ministry of Health Food Guide for the Brazilian Population (Brazil, 2014) and the Brazilian Food Guide for children under two years old (Brazil, 2019). In the first document, the concept of adequate and healthy eating is described as:

> A basic human right that involves the guarantee of permanent, regular, and socially fair access to adequate eating in terms of the individuaĺs biological and social characteristics that should be consistent with special food needs. It should be referenced on the respective food culture and gender, race, and ethnic dimensions; accessible and affordable; consistent in quantity and quality, meeting the principles of variety, balance, moderation, and pleasure, and based on adequate and sustainable farming practices (Brazil, 2014, p. 8).

Consistent with the Brazilian Food Guide, PNAE limits ultra-processed foods in school meals. In February 2025, the government announced a reduction from 20 percent to 15 percent of the foods offered in the programme. The limit on ultra-processed foods in school meals is further reduced to 10 percent in 2026 (Brazil, 2025a). PNAE has also promoted breastfeeding in schools to ensure the right to continued breastfeeding and reduce barriers to accessing daycare and childcare for working mothers (Brazil, 2022).

PNAE also provides incentives for public schools to develop and implement food and nutrition education activities. One example is an annual contest (Jornada de Educação Alimentar e Nutricional nas Escolas) that showcases some of the best food and nutrition education initiatives undertaken by schools across the country. In addition to giving local projects visibility, the contest recognizes the work of school principals and nutritionists who implement them. Recent themes in this contest included: "Eating in company, with pleasure and attention"; "How climate change affects our eating and what can we do"; "Traditional peoples and communities: valuing knowledge and connections with school food"; and "Beyond the kitchen: the role of school cooks as educators" (FNDE, 2025).

Is PNAE inclusive? Do children and youth have access to culturally appropriate, relevant and inclusive school food programs that engage students and the broader community?

Is PNAE flexible? Is food locally sourced where possible and reflective of local and regional circumstances?

Is PNAE sustainable? Are programs designed to be environmentally sustainable and adequately resourced?

We find that three principles in the Canadian policy (inclusive, flexible, and sustainable) are highly intertwined in the Brazilian PNAE through its emphasis on privileging local food production and sourcing, and thus, we have chosen to analyze them together. The 2009 PNAE legislation required that at least 30 percent of federal funding transferred to municipalities and states be spent on the direct purchase of family-farming products, a measure that stimulates the economic and sustainable development of local communities. That share grew to 45 percent in 2026. The same provision also establishes priority for agrarian reform settlements, traditional Indigenous communities, quilombola communities, and formal and informal groups of women and youth as food suppliers in the programme. In 2023, an amendment to the legislation stipulated that the acquisition of foodstuffs from an individual rural family must be made in the woman's name for at least 50 percent of the purchase price (Brazil, 2023b). Flexibility in public procurement processes is essential to ensuring that small family farmers, Indigenous and quilombola communities, and women's and youth groups can supply the programme (Burlandy et al., 2023). Thus, for example, under certain conditions, municipalities can choose to purchase food from producer cooperatives rather than from individual family farmers to facilitate the participation (and organization) of smaller and more marginalized producers.

In terms of inclusiveness, PNAÉs legislation also guarantees differentiated care for students with special dietary needs (as confirmed by a medical certificate), such as celiac disease, diabetes, hypertension, anemia, allergies, and food intolerances. In this case, the technical team of nutritionists develops an identification strategy, creates adapted menus, and organizes the offer in schools (e.g., using photos to identify children or bracelets), supported by training for food servers. The programme also includes legal provisions that guarantee access by traditional peoples and communities, such as Indigenous peoples and quilombolas, to foods that meet their cultural specificities (Brazil, 2020).

In Canadian policy, "sustainability" has two meanings: financial sustainability and environmental sustainability.

In terms of financial sustainability, PNAE is governed by legislation that establishes the federal resources to be transferred to municipalities and states across the country (see Table 2 for 2023 values). While this can bring its own difficulties (see Difficulties in implementation), it does provide a degree of financial assurance and sustainability.

In terms of environmental sustainability, this principle in PNAE is closely intertwined with the flexibility principle (discussed above), which favours purchasing locally produced foods from small family farms. The programme also includes rules to increase the supply of fresh foods and prioritizes organic and agro-ecological food production. It also includes guidelines on storing and preparing food, with recommendations to reduce food waste in the school environment.

Is PNAE accountable? Are there instruments for consistent and transparent monitoring and evaluation to ensure that programmes are achieving policy objectives?

Government agencies monitor and supervise PNAE, and society in general (more directly) through the School Food Councils (CAEs), which are responsible for the programme's social control. CAEs monitor product acquisition, the quality of the food offered to students, the hygienic/sanitary conditions under which the food is stored, prepared, and served, and the proper financial execution of the program at the local level. Each CAE includes one government representative (municipal or state), two education workers (teachers and kitchen staff), two parent representatives, and two civil society representatives. In Indigenous or quilombola areas, it is recommended that at least one representative come from those communities. Each representative has a four-year, volunteer mandate, which can be renewed (FNDE, 2023). Federal transfers of funds to municipal and state schools can occur only once their CAEs are operational and have submitted reports on the programme's local implementation.

Another institution that oversees the programme is the Public Prosecutor's Office, which has a dedicated unit for monitoring the implementation of public programmes, including PNAE. The Federal Court of Auditors monitors the use of programme resources, and Regional Councils of Nutrition supervise professional practice and the number of nutritionists in the programme, in accordance with PNAE's legislation. Furthermore, a partnership between the Ministry of Education and public universities, through the School Feeding Collaborating Centres (CECANEs), develops actions to support and monitor the programme's implementation nationwide. CECANEs, for example, promote continuous training of CAE members (Barbosa et al., 2024).

In terms of accountability across its many aspects, it is important to highlight the role of the Technical Responsible Nutritionist under PNAE. Each municipality and state must hire at least one full-time (minimum 30 hours/week), credentialed nutritionist who is responsible for the implementation of the programme in each school, taking into account the size of the municipality, the number of students, the number of rural, quilombola, Indigenous and urban schools (CFN, 2024a). For example, a small municipality (20,000 to 50,000 inhabitants) in the southeast region with up to 1,000 students must have two nutritionists and one technical manager. In the north, this parameter changes to three nutritionists. Under legislation, the Federal Council of Nutrition determines the attributions of the Technical Responsible Nutritionist through a legally binding Resolution, updated most recently in September 2024 (CFN, 2024b). The Resolution spells out the obligations of the Nutritionist in PNAE:

1. Coordinate actions for assessing the nutritional condition of students through anthropometric tests;
2. Develop an Annual Working Plan;
3. Plan, monitor and keep records of activities in food and nutrition education in the schools;
4. Plan, develop, monitor the execution, and evaluate the menus offered in the schools, including differentiated meals

to attend to students with special dietary needs;
5. Develop and follow technical records of the foods composing the meals in schools;
6. Promote the identification of students with special dietary needs;
7. Support the technical supervision of the quantity and quality of food supplied to the schools; and
8. Liaise with family farmers and other local food suppliers to include their products in school meals.

Other complementary activities of the Technical Responsible Nutritionist include:

1. Collaborate in the recruitment and hiring of school personnel directly involved with PNAE (e.g., cooks);
2. Participate in the planning and supervision of the implementation or adaptation of physical facilities, equipment and utensils in the areas of reception, storage, processing, distribution and consumption of school food;
3. Work in multidisciplinary teams to plan, implement, monitor and execute policies, programmes, courses, research and events (technical meetings, congresses, technical workshops, seminars, among others) related to school meals;
4. Contribute to the development and updating of regulatory standards and protocols related to school meals;
5. Collaborate in the training of professionals in the area of food and nutrition; and
6. Supervise internships and participate in improvement, qualification and training programmes.

III – Difficulties in implementation

Challenges abound in implementing such an ambitious national programme. We highlight here four of the most prominent: 1) achieving equity, 2) fiscal priorities, 3) rigid bureaucracies, and 4) conflicts of interest.

Achieving equity

The country's size and regional inequalities challenge local implementation of PNAE. Municipalities and states have distinct institutional, financial and management capabilities, which lead to differences in local resources to supplement the federal funds transferred.

Concerns about equity have led to changes in the programme over the years, such as allocating greater federal financial resources to Indigenous and quilombola communities and designating 30 percent of federal funds for the purchase of food produced by small family farmers. Still, the reality of a deeply unequal country weighs on local-level results. In this sense, the calculation used to determine the amounts transferred from the federal government to the states and municipalities still lacks mechanisms for adjustment and criteria that account for local specificities to ensure greater equity in both access to and the quality of the meals provided throughout the country. Unequal conditions also show up in very different physical structures (appropriate spaces for food storage and preparation) and in the number and skills of local personnel (e.g., cooks) dedicated to implementing the programme.

Fiscal priorities

Municipalities and states are led by governments with different priorities and ideologies, which may not give the same importance to social programmes. At the national level, although it is a well-established and popular programme, anchored in legislation and solid institutions, PNAE can still be challenged by political changes. From 2014 to 2022, for example, several food and nutrition programmes faced funding cuts as part of fiscal austerity policies implemented by

governments during that period (Souza et al., 2019; Burlandy, 2023). The PAA (Programa de Aquisição de Alimentos), the federal programme that supports the purchase of foodstuffs produced by small family farmers, suffered severe funding cuts. While PNAE itself did not face funding cuts, the federal government did not adjust transfers for inflation for over five years, until 2023.

Different governments in Brazil pursue fiscal austerity to control inflation and create an environment favoured by international investors. How such fiscal austerity is expressed (that is, which programmes are impacted by funding cuts), however, depends on the government's political-ideological persuasion, with those more to the left in the political spectrum trying to preserve social programmes while pursuing fiscal balance, and governments more to the right having less concern with the continuance and improvements of such programmes.

SISAN's National Council on Food and Nutrition Security (CONSEA) was abolished by presidential decree on the first day of President Jair Bolsonaro's term (2019-2022), clearly signalling the reduced support the new federal government would give to food and nutrition security programmes. Despite that, SISAN's institutional structures remained in many states and municipalities, and although weakened, programmes such as PNAE did not end. During that time, PNAE survived thanks to its well-established institutional structure, popular support, and civil society mobilization in its defence. This, in turn, allowed President Lula's new centre-left government (starting in 2023) to recover and further strengthen the programme.

Rigid bureaucracies

Another major challenge for PNAE has been adapting public procurement mechanisms to the demands of the legislation governing them. Despite progress in remodelling these mechanisms to allow participation by various groups (small family farmers, producers from Indigenous and traditional communities, and women's groups) in the public purchase of food, this participation remains a challenge (Burlandy et al., 2023). For example, urban agriculture producers, who could greatly contribute to the local supply of fresh vegetables in large urban centres, sometimes face barriers to being recognized as "farmers" under the public bidding legislation, since their gardens are not considered "rural properties", and hence can face difficulties participating as suppliers in the programme.

Conflicts of interest

Given the programme's size and the government funding involved in its implementation (R$5.46 billion, or 0.12 percent of the federal budget in 2025) (Brazil, 2025b), it is not surprising that PNAE often sparks disputes among commercial and non-commercial interests. Many of its features, such as favouring small family farmers as suppliers and limiting ultra-processed foods, run counter to powerful commercial interests.

The food industry's efforts to undermine efforts to reduce ultra-processed food consumption in schools have raised concerns in recent years, leading to the prohibition of ultra-processed food advertising in schools. Further, in 2022, the Coordination of Food and Nutrition Security (COSAN) at the Ministry of Education prepared a Technical Note to guide the behaviour of actors involved in implementing PNAE (FNDE, 2022). The Technical Note discusses strategies for identifying and preventing conflicts of interest during programme implementation. It specifically identifies a number of instances for potential conflicts of interest to be avoided, such as pedagogical material offered by food industry companies; professional and educational talks sponsored by the industry; sponsored school visits to ultra-processed food manufacturing plants; sponsorship of sports, arts and other school events by the industry; and donations or free samples of ultra-processed foods. Everyone involved in implementing PNAE, including municipal and state departments of education, school directors, teachers, cooks, and nutritionists, is responsible for following these directives.

IV – Conclusion

The principles established in Canada's National School Food Policy align with those followed in the Brazilian PNAE. PNAE is accessible because it is present throughout the country's public school system. PNAE is health-promoting, following the guidelines established in the most recent Brazilian Food Guide and supporting food and nutrition education initiatives. It is also inclusive, with provisions to meet individual health needs as well as cultural and local characteristics; flexible, with special conditions for benefiting local and small farmer suppliers; sustainable, both financially (secure federal funding) and environmentally (favouring local, organic, and agro-ecological production); and accountable, through the oversight by various government agencies and civil society through the School Food Councils.

Challenges in implementing the Brazilian programme are many. These include the country's high regional and social inequalities, the need to adopt more flexible procurement rules, disputes with powerful commercial interests, and the commitment of local and federal governments to the programme, both financially and in terms of its principles. As Canada continues to implement its School Food policy, it can draw lessons from how Brazil addresses these challenges, which we believe are also present in the Canadian context.

Despite its many and ongoing struggles, PNAE helps ensure Food and Nutrition Security by influencing the five dimensions of this process (the 5 As): availability, accessibility, adequacy, acceptability, and agency. PNAE was redesigned in the context of a national policy of Food Systems Transformation, as part of the participatory social process that contributed to SISAŃs consolidation, becoming a strategy to simultaneously support family farming, traditional and local communities, and agro-ecological production, and to promote adequate and healthy eating. The programme strengthens connections among the modes of food production, distribution and consumption, and enhances healthy, sustainable and equitable food systems.

PNAE's resilience is undeniable. In its most recent format (since 2009), the programme withstood the most adverse period of funding cuts (2016-2022) and the COVID-19 pandemic, while also making progress by publishing new guidelines aligned with the latest Brazilian Food Guide. Much of this resilience stems from the programme's national capillarity (its presence throughout the public school system), shared management structure (with the participation of federal, state, and municipal entities), and the mobilization of social actors and organizations in its defence.

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PART 3. COMMUNITY ACTION AND REPRESENTATION

Part 3. Community action and representation foreground the voices, knowledge, and leadership of communities that have historically been marginalized within food systems scholarship, policy, and practice. Together, they demonstrate that food insecurity is shaped by intersecting systems of colonialism, racism, gender, class, migration, and other forms of structural inequality, while also highlighting the agency and resilience of those most affected. Through intersectional, decolonial, and community-engaged perspectives, the authors examine Indigenous food sovereignty, Black food sovereignty, immigrant foodways, and the experiences of diverse populations whose realities are often overlooked in dominant food security discourse. Moving beyond deficit-based narratives, the section emphasizes community-led initiatives, cultural knowledge, grassroots governance, and collective action as essential drivers of more just and equitable food systems. Collectively, these chapters argue that meaningful food security requires recognizing diverse forms of knowledge, expanding representation in food governance, and supporting community self-determination as a foundation for social justice, reconciliation, and transformative food system change.

7. Decolonial and Intersectional Dimensions of Food Security in the 21st Century

RYAN ANTONIO; LOUISE HUNEAULT; ANDREA MORAES; AND GERTRUDE OMORO

Abstract

Although the focus on women and gender relations remains important in food security, an intersectional and decolonial feminist perspective shows that gender does not operate in isolation. Alongside other structural axes in society, it shapes the norms and practices of the household, work, community, market, the state, and other social institutions, creating barriers to or enabling food security. This chapter reflects on the enduring value of using an intersectional and decolonial lens to examine food security in the 21st century, despite growing attacks on equity, diversity, and inclusion by authoritarian governments worldwide. This chapter examines agency through three dimensions of food security. First, it highlights the historical and contemporary agency of Black and Indigenous peoples and communities in promoting food security in Canada. Second, it questions how poverty and food insecurity are measured and what those measures mean for senior women in Canada. Finally, it explores the complexity of food insecurity among transgender sex workers in Canada. By raising these discussions, we aim to highlight the need for more visibility of diverse voices and narratives through an intersectional approach to food security.

I – Introduction

Women have long been central to food system functioning at all levels, from farming to household food preparation, yet their contributions remain undervalued. Despite their essential role, persistent gender inequalities limit women's access to resources, infrastructure, and decision-making power (World Economic Forum, 2024). As a result, women are, on average, more vulnerable to food insecurity than men (Food and Agriculture Organization [FAO], 2023), and account for approximately 60% of the food-insecure people worldwide, even when controlling for education level, poverty status, and residence (World Food Program, 2019).

Although the focus on women and gender relations still matters in food security, an intersectional (Crenshaw, 1989) and decolonial (Mignolo & Walsh, 2018) feminist perspective reveals that gender does not operate in isolation. In conjunction with other structural axes in society – such as race, class, abilities/disabilities, gender identity, sexual orientation, creed, immigration status, and age – gender determines the norms and practices of the household, work, community, market, the state and other social institutions that can create barriers or enablers to food security.

This chapter reflects on and expands the enduring value of applying an intersectional and decolonial lens to food security in the 21st century, particularly amid growing attacks on equity, diversity, and inclusion initiatives by authoritarian governments worldwide. An intersectional approach, first articulated by Crenshaw (1989) in her foundational work on discrimination law, demonstrated how employment discrimination experienced by Black women in the U.S. differed from that experienced by Black men or white women (Crenshaw, 1989). Crenshaw further expanded this critique of the single-axis framework through an intersectional analysis of violence against women, highlighting the compounded vulnerabilities faced especially by women of colour (Crenshaw, 1991). As Atrey & Dunne (2020, p. 6) note, "it was the combination of the many positions of vulnerability that defined what was generically termed 'violence against women' when it came to women of colour".

Since its emergence, intersectionality has been incorporated across multiple disciplines and practices (Cho et al.,

2013), including food studies (Williams-Forson & Wilkerson, 2011). In Canada, intersectional food studies are "concerned with the ways that various forms of oppression and privilege including, but not limited to, gender, race, class, sexuality, ability, religion and age are shaped and experienced in relation to food" (Parker et al., 2019, p. 1). This chapter complements an intersectional gender lens with a decolonial approach (Mignolo & Walsh, 2018), which recognizes and challenges the dominance of Western hegemonic perspectives on food systems and their implications for food security.

The Center for Studies in Food Security (CSFS) at Toronto Metropolitan University (TMU) defines food security as dependent on five interrelated conditions, commonly referred to as the 5As: food availability, accessibility, adequacy, acceptability and agency (CSFS, n.d.). Additionally, courses taught through TMU's Chang School of Continuing Education, as part of the Certificate in Food Security, embrace an intersectional approach. The course Gender and Food Security (CFNY 409), for instance, an elective of the Certificate, underscore that an intersectional and decolonial gender lens on food security can reveal inequities in food availability, including production and processing, that can affect the livelihoods of women, girls, and gender-diverse people differently (see TMU, 2021a). Food accessibility can also be affected by gender norms, from the complexity of land tenure systems to inequities in water access (see TMU, 2021b), as well as inequitable access to education, work and income, demonstrated by issues such as the existence of the gender pay gap, the motherhood penalty, the double or triple day work, and challenges with childcare and single motherhood (see TMU, 2021c). An intersectional perspective on food adequacy can also shed light on how food is gendered, the different impacts of inadequate food and nutrition on women and girls, and the role of food and nutrition professionals in advocating for healthy food for all (see TMU, 2021d). Food acceptability can raise issues such as whether services are delivered equitably to all members of the public, including gender-nonconforming individuals; cultural factors that affect men's participation in food programs and services; and how attitudes toward motherhood and femininity influence breastfeeding rates (see TMU, 2021e). Finally, a gender lens on food agency examines social movements, community responses, and public policies addressing food security. It can examine the relationship between feminism, food studies, LGBT2SQ+ (two-spirited, lesbian, gay, bisexual, transsexual, queer, intersexual, asexual and other diverse sexual orientations and gender identities) movements, and the alternative food movement, including food justice and food sovereignty (see TMU, 2021f). It can also examine how community programs promote social inclusion and agency, and how policies affect men, women, and other gender-diverse people. These are just a few examples of the value and power of an intersectional and decolonial lens to food security through the 5As framework.

This chapter focuses on food agency, examined through three dimensions of food security that warrant particular attention in the 21st century. Section II highlights Black and Indigenous Peoples' agency in food security in Canada. It argues that despite experiencing disproportionately high rates of food insecurity due to structural racism, colonial legacies, and systemic socioeconomic exclusion, Black, Indigenous, and People of Colour (BIPOC) communities across the country have historically and continuously exercised agency by reclaiming food sovereignty and revitalizing traditional food systems to strengthen cultural identity, improve health, and ensure sustainable land stewardship (See also Chapters 8 & 9 in this volume).

Turning to policy application, Section III questions the official measures of food security and poverty among senior women in Canada by examining the adequacy of the Household Food Security Survey Module (HFSSM) and Market-Based Measurement (MBM) tools for this population. While acknowledging the complex, multidimensional nature of seniors' food insecurity and poverty, this section highlights alternative measurement approaches.

Through an intersectional lens, Section IV explores the lived experiences of Transgender individuals involved in sex work in Canada, and how policies impact their food security. Trans individuals face systemic discrimination, resulting in disproportionately high food insecurity levels. Many turn to sex work as a survival strategy, which exposes them to punitive sex work policies, threatening their health, well-being, and food security. While these three dimensions represent only a small part of the broader discussion of intersectionality, decoloniality, and agency in food security, we argue that exploring them offers insight into how to highlight diverse voices and narratives in food security that deserve greater attention in the 21st century.

II – Recognizing Black and Indigenous Agency in Food Security

Black and Indigenous peoples in Canada, including First Nations, Métis, and Inuit communities living on and off reserves, experience disproportionately high rates of food insecurity. In 2023, an estimated 40.2% of Black individuals and 36.8% of off-reserve Indigenous households were food insecure, compared to a national average of 22.9% (PROOF, 2024). These racial disparities are most evident among households living with children. Nationally, 46.3% of Black children and 40.1% of Indigenous children lived in food-insecure households, compared to just 19.3% of white children (Li et al., 2023). Food insecurity is particularly severe in remote and northern Indigenous communities, where it affects up to 78% of individuals over the age of 16 (Furgal et al., 2021). However, even these alarming figures undermine the true scale of the problem, as national surveys exclude First Nations people living on reserve and underrepresent Inuit and northern communities (Alabi & Robin, 2023; PROOF, 2025). The incompleteness of data itself reflects the colonial legacy, as these inequities in food security stem from a shared history of colonization, institutionalized racism, and struggles for land and autonomy. As such, statistics alone cannot fully reflect the lived experiences of Black and Indigenous peoples in Canada or the diverse strategies they use to address food security challenges within their communities.

Colonialism, Racism, and Food Insecurity: A Historical Overview

The roots of food insecurity among Indigenous peoples in Canada are deeply embedded in the nation's colonial history, which systematically disrupted their connection to land, culture, and traditional food systems (Inuit Tapiriit Kanatami, 2004; Loppie et al., 2014; Martens et al., 2022). Colonization weaponized food as a tool of control, beginning with the deliberate elimination of the buffalo—a keystone species essential to the livelihoods of Plains Indigenous nations (Daschuk, 2013; Foster & Parrot, 2015). The reserve system further restricted Indigenous mobility and access to traditional hunting, fishing, and farming practices, forcing dependence on government-controlled food rations (Irwin, 2022). Reserves were created under the Indian Act of 1876 and were often located on small, agriculturally unsuitable parcels of land (Carter, 1990; Parrot, 2022). This system was designed to control Indigenous communities and limit their autonomy, severing their connection to traditional food systems and territories (Nestor, 2018; Parrot, 2022). The Indian Act also prohibited cultural practices such as the potlatch, which was not only a ceremonial feast but also a vital way to redistribute food and maintain social cohesion (Noakes, 2024).

Even when Indigenous communities adapted to farming, policies such as the "Peasant Farming Policy", adopted in Canada in the late 1880s and early 1890s, actively undermined their success by restricting their access to modern agricultural tools and markets (Bateman, 1996; Cuthand, 2021). These systemic interventions were compounded by the devastating impacts of residential schools (1880s to 1996), where children were malnourished, denied traditional diets, and subjected to unethical nutritional experiments (Mosby, 2013). Together, these colonial policies dismantled Indigenous food sovereignty, severing ties to traditional food systems and leaving generations vulnerable to food insecurity.

Black Canadians have similarly endured systemic racism and displacement that have shaped their experiences of food insecurity. Dating back to the 17th century, Black individuals—many of them enslaved—were exploited for their labour, particularly in agricultural work to sustain colonial settlements in New France, later known as Canada (Henry-Dixon, 2022). This is exemplified in a statement by Ruette d'Auteuil, the Attorney General of Quebec, in 1689:

> Negroes are adaptable to all sorts of work, and as the cost of ownership is merely for them, their clothing, and nourishment, there is nothing to stop the success of an undertaking, because with them we can lose nothing except labour. (Canadian Mysteries, n.d.; CBC, 2023).

After the American Revolutionary War in 1783, over 3,000 Black Loyalists immigrated to Nova Scotia, hoping to build new lives following promises of land and freedom (Oyeniran, 2021a). However, the land they received was often of

poor quality and unsuitable for farming, leaving many unable to sustain themselves (Oyeniran, 2021a). In the face of these challenges, Black Loyalists worked to establish self-sustaining communities, including Africville. Located on the outskirts of Halifax, Africville became a vibrant Black community where residents built homes, cultivated gardens, raised livestock, and fostered a strong sense of solidarity and cultural identity, even as they were denied basic services like running water, electricity, and proper sewage infrastructure (Clairmont & Magill, 1999; McRae, 2017). Tragically, in the 1960s, the City of Halifax demolished Africville, claiming it would improve residents' poor living conditions (Clairmont & Magill, 1999; McRae, 2017). However, many saw the initiative as an act of systemic racism, targeting and erasing a thriving Black community. The destruction dismantled decades of self-sufficiency, disrupted economic progress, and perpetuated cycles of poverty and food insecurity that still impact Black communities in Canada today. This effort to undermine Black self-sufficiency was not an isolated incident, as similar patterns of systemic racism also affected Black farmers who sought refuge and opportunity in Canada (Government of Canada, 2025). More recently, Black communities have faced parallel forms of displacement in urban centres such as Toronto's Little Jamaica, where prolonged Eglinton Crosstown LRT construction has devastated one of the city's most significant Black cultural and economic corridors. The project, framed as necessary "progress," contributed to the closure of hundreds of small and predominantly Black-owned businesses, eroded community identity, and accelerated gentrification in a neighbourhood long recognized as a cultural anchor for Caribbean communities (Thayaparan, 2026).

Between 1905 and 1912, around 1,500 Black Americans, primarily from Oklahoma, immigrated to Canada and settled in Saskatchewan and Alberta in search of better opportunities (Addiscott & Vernon, 2020). Canadian advertisements promising fertile land and opportunities for a better life drew them, though these ads were originally intended for white settlers (Heritage Community Foundations, 2019; Vernon, 2024). Black settlers built self-sufficient farming communities with schools, churches, and social organizations, despite facing systemic racism (Kelly, 2021; Oyeniran, 2021b). Over time, many Black farmers were pushed out of farms due to a lack of economic opportunities, marginalization and exclusion from mainstream society, and continued discriminatory practices, such as being denied access to loans and credit essential for purchasing equipment, seeds, and other farming necessities (Melton, 1994).

Following the abolition of slavery, systemic racism and exclusionary policies continued to shape the lives of Black Canadians (Government of Canada, 2023; McCullough & McRae, 2023). Racism towards Black people persisted well into the 20th century, with policies such as the 1910 Immigration Act explicitly designed to limit their entry into Canada (Heritage Community Foundations, 2019). Today, the enduring effects of anti-Black racism are embedded in housing, employment, health, and planning systems and have resulted in stark inequities (Elsharkawy, 2023).

These historical injustices intersect with contemporary issues, such as the ongoing exploitation of Black and Indigenous labour in the agricultural sector through temporary foreign worker programs, where conditions are often described as modern-day slavery (Alberga, 2023; Amnesty International, 2025; Elsharkawy, 2023; Mooten, 2021). Viewed through an intersectional and decolonial lens, these histories demonstrate that contemporary food insecurity cannot be separated from racialized processes of dispossession, exclusion, and restricted access to land and economic resources. The collective experiences of Black and Indigenous communities reflect a shared history of systemic racism, displacement, and exploitation, which have contributed to the disproportionately high rates of food insecurity they face today.

Community-Driven Food Innovations and Ways Forward

The cultural identity, resilience, and survival of Black and Indigenous peoples in Canada are deeply tied to food, reflecting their profound connection to the land and natural resources. Indigenous communities across Canada have been actively working to reclaim food sovereignty and revitalize traditional food systems to strengthen cultural identity, improve health, and ensure sustainable land stewardship. Organizations such as the Assembly of First Nations (AFN, 2026) have collaborated with researchers and community members across eight AFN regions to support community-driven initiatives that empower First Nations to reclaim food sovereignty and strengthen cultural identity. This

partnership has led to the development of the First Nations Food, Nutrition, and Environment Study (FNFNES), a comprehensive 10-year community-based participatory research project (FNFNES, 2023). The FNFNES provides essential recommendations to address food insecurity and promote food sovereignty, highlighting the need for policies that integrate traditional food systems and enhance access to culturally relevant foods (FNFNES, 2021). Through this collaborative effort, the AFN and participating communities are working to create sustainable solutions that honour Indigenous knowledge and practices while fostering resilience and well-being among First Nations populations.

Similarly, Inuit Tapiriit Kanatami (2021), the national representative organization that protects and advances the rights and interests of Inuit in Canada, has focused on securing access to culturally significant foods such as Arctic char, seal, and caribou. It also advocates for policies that address the impacts of climate change and food insecurity in Inuit Nunangat.[1], which includes the four Inuit regions in Canada: the Northwest Territories, Labrador, Quebec and Nunavut. Other grassroots movements, such as Indigenous community freezers (NunatuKavut Community Council, 2025) and land-based education programs (Tr'ondëk Hwëch'in Farm, n.d.), further highlight community-driven efforts to resist colonial food systems and promote self-determination. Together, these initiatives aim to reclaim sovereignty over food, land, and resources for future generations. For Indigenous communities, traditional food practices—such as hunting, fishing, foraging, and farming—are not only a means of sustaining themselves but also a form of stewardship, rooted in respect and reciprocity with the earth.

Similarly, Black communities, particularly those with histories linked to migration, have cultivated food-sharing traditions that honour their ancestral knowledge and adapt to local environments (Addiscott & Vernon, 2020). During the COVID-19 pandemic, Black-led organizations, including churches, stepped up to address food insecurity by organizing food drives and distributing meals to thousands of families in need, filling gaps left by insufficient government support (Regnier-Davies et al., 2022). These efforts often draw on the tradition of church dinners, which have historically provided food and fellowship to Black communities and fostered a sense of belonging and care (Clairmont & Magill, 1999; McRae, 2017). By situating food distribution within these trusted community spaces, Black churches make food more accessible to those who might otherwise face systemic barriers, such as economic inequality or racial discrimination. Beyond the pandemic, Black churches and community groups have expanded their role by offering shelter, meals, and essential supplies to asylum seekers, addressing key social determinants of health—such as housing and nutrition—that intensify food insecurity. Through these efforts, they remain pillars of care and resilience for marginalized populations (Paradkar, 2023).

Black and Indigenous women have long led efforts to honour, protect, and sustain the land, acting as vital stewards of Earth's resources through traditional knowledge, community-driven initiatives, and advocacy. As custodians of significant portions of the world's biodiversity, Indigenous Peoples offer critical insights into sustainable living and food systems. Their traditional ecological knowledge, rooted in generations of stewardship, is increasingly recognized for its importance in documenting food biodiversity and contributing to human well-being. For example, Elder Shirley Williams, the first Indigenous woman in Canada to earn the designation of Professor based on traditional knowledge, has dedicated her life to preserving and sharing Anishinaabe cultural teachings (Maracle, 2024). Since 2010, alongside Elder Liz Osawamick, she has championed the Traditional Anishinaabe Water Teachings, which emphasize honouring Earth Mother and the sacred water, or Nibi, that sustains all life (Trent University, n.d.). Through their teachings, the women inspire communities to reconnect with the environment and adopt sustainable practices rooted in respect and reciprocity. Similarly, the Mno Aki Land Trust Inc. (Mno Aki), meaning "Good Earth" in Ojibwe, is a powerful example of Indigenous women leading land stewardship. Governed by Indigenous Grandmothers from across Turtle Island, this federally incorporated land trust and registered charity focuses on protecting and restoring the land while fostering intergenerational knowledge-sharing (Ecological Farmers Association of Ontario, 2023).

Black women have also made significant contributions. Adebola Adefioye, a Nigerian newcomer to Canada, founded the Afro Women and Youth Foundation (AWYF) Food Bank to address food insecurity and foster community resilience

1. The term "Inuit Nunangat" is a Canadian Inuit term that includes land, water, and ice. Inuit consider the land, water, and ice of our homeland to be integral to our culture and Arctic way of life (Inuit Tapiriit Kanatami, 2021).

(AWYF, n.d.). Cheyenne Sundance, founder of Sundance Harvest, has established herself as a leader in urban agriculture, creating spaces for marginalized communities to learn sustainable farming practices and reclaim food sovereignty (Farmer's Footprint, n.d.). Together, these women exemplify the transformative power of traditional knowledge, community care, and a deep-rooted connection to the land.

As the effects of climate change intensify, addressing food insecurity has become a critical challenge at local, national, and international levels (FAO et al., 2024). In Canada, millions of households continue to experience food insecurity, exacerbated by recent global economic crises and rising food prices (Pagaduan et al., 2024; Polsky, 2024). While the commonly used household definition of food security emphasizes access, a broader understanding reflected in the 5A's of food security offers a more comprehensive lens (CSFS, n.d.). Framing food security through this model highlights how systemic inequities shape not only whether food is available or economically accessible, but also whether communities can access culturally appropriate foods, afford nutritious options, and have the agency to participate in, shape, and control their own food systems. This broader framework aligns closely with the principles of food sovereignty, which go beyond access and availability to emphasize communities' rights to govern the land, waters, and food systems they depend on. This perspective is particularly important for Indigenous and Black communities in Canada, whose agency to harvest, sustain, and use food from the land, water, and sky remains essential to combating food insecurity and must be recognized and supported. An intersectional perspective on food security, with a focus on agency, highlights the "complexity of disadvantage associated with multiple identities" (Atrey & Dunne, 2020, p. 6). Thus, the next section changes the focus from race to age and raises concerns over the increased vulnerability of senior women to food insecurity in Canada, as well as the complexity of understanding and addressing this issue.

III – Food Security and Senior Women in Canada: Are official Measures of Food Security and Poverty Telling the Whole Story?

By 2040, seniors in Canada are projected to number 10.2 million, representing 25% of the population (Government of Canada, 2021). Often described as the "feminization of old age" (Stuckelberger, 1997), the fastest-growing subgroup of Canadian seniors comprises women aged 85 or older (Statistics Canada, 2022). Food insecurity and poverty among seniors are interlinked, complex, and multidimensional issues (Leroux et al., 2020). According to the National Institute on Ageing (2024), women, single-person households, renters and those with lower education levels are at greater risk of poverty. However, official measures of food insecurity and poverty, such as the Household Food Security Survey Module (HFSSM) and the Market Basket Measurement (MBM), may not fully capture which senior households in Canada are, in fact, food insecure or living in poverty.

Limitations in HFSSM and MBM measures raise concerns around agency – one of the 5A's of food security (CSFS, n.d.)- because what is measured determines who is recognized, who qualifies for support, and how governments design responses. In this section, we will explore the adequacy of the HFSSM and MBM measurement tools and policies in a senior female population and highlight complementary measurement approaches.

Shortcomings of the HFSSM and MBM

The HFSSM, Canada's primary validated measure of food security, may not provide a full picture of food insecurity among seniors for two key reasons:

1. The HFSSM assesses food security at the household level, primarily among women and children. It does not reflect the lived experience of individual seniors in multi-person households who may underconsume because of reduced appetite or physical or mental health challenges (Lee, 2022).

2. HFSSM focuses on financial constraints as the primary reason for food insecurity. Seniors face many non-financial barriers that affect food security, including limited mobility, chronic illness and social isolation (Lee, 2022).

The HFSSM's household and financial focus may overlook key food security issues among seniors—especially women aged 85 and above, the fastest-growing subgroup. To address this gap, supplementary tools designed specifically for seniors, such as the Seniors in the Community Risk Evaluation for Eating and Nutrition (SCREEN), are recommended (Keller & Trinca, 2025).

Many consider the MBM the gold standard for measuring poverty in Canada, and it is tailored to a family of four, consisting of two adults and two children (Griffin & Tabbara, 2023). The MBM uses an equivalization approach to calculate poverty thresholds for families of varying sizes (Statistics Canada, 2024). However, critics argue that equivalization calculations underestimate poverty in smaller senior households (Griffin & Tabbara, 2023). This concern is especially pertinent for older women who may be widowed, separated, or divorced and living alone at retirement. Additionally, the MBM does not account for healthcare costs such as vision care, hearing care, home care, and medical equipment, which Canada's universal healthcare system does not cover. While provincial programs offer financial support for some of these out-of-pocket expenses, most require an income-based co-payment (Griffin & Tabbara, 2023; Manulife, n.d.). This is again particularly relevant to senior women, who often face higher health costs due to longer life expectancy, a progressive decline in health status with ageing, and lower retirement incomes.

Official measures such as the HFSSM and the MBM systematically underrepresent hardship among Black, Indigenous, and racialized women because they emphasize income adequacy rather than lifelong gendered and racialized disadvantages such as education, wage gaps and precarious employment (Canadian Centre for Policy Alternatives [CCPA], 2022; Li et al., 2023; Maytree, 2023). This further illustrates how these official measures fail to reflect the lived realities of senior women in Canada.

Alternate Indicators and Ways Forward

In contrast to the MBM, the Canadian Elder Standard (CES) provides a more tailored benchmark for seniors by estimating the after-tax income required to meet basic needs, including food, shelter, medical care, transportation, miscellaneous expenses and home-based long-term care for a single senior or a couple living in five major Canadian cities (MacDonald et al., 2010). Unlike the MBM, the CES is senior-specific and recognizes that seniors are not a homogeneous group. It considers how factors such as gender, city of residence, homeowner or renter status, means of transportation and health status influence the cost of living. By incorporating these dimensions, the CES measures aspects of poverty that the MBM does not currently address and highlights the effects of gender disparity.

Another complementary measure of poverty is the Material Deprivation Index (MDI). The MDI assesses an individual's ability to afford items considered important to well-being, such as dental care and covering unexpected expenses (Mendelson et al., 2024). A recent survey by the National Institute of Ageing (2024) revealed that, according to the MDI, 14% of adults aged 65+ have a poverty-level standard of living, compared with 6% reported by the MBM in 2022. This suggests that poverty among older Canadians may be more prevalent than Canada's official measures indicate. Although not senior-specific, the MDI offers another lens to understand the extent of poverty among seniors and the trade-offs they may face to make ends meet. These findings emphasize that income-based measurement tools alone cannot fully capture the experience of poverty, particularly among senior women.

As Canada's senior population continues to grow, food insecurity among senior women is an increasing concern. Canadian policy is currently driven primarily by datasets derived from official measures of food security and poverty. A variety of socio-economic variables play a crucial role in determining poverty and food security status in senior women. A multidimensional measurement approach is recommended to better inform food policy in this population. Such an approach includes the development of a more holistic definition of poverty that better characterizes the lived experiences of seniors, including gender disparity; complementing the MBM with the CES and/or MDI to obtain

additional information beyond income-based dimensions; as well as complementing the use of quantitative measurement tools with qualitative and participatory research methods (i.e., storytelling) to assess poverty from a more holistic perspective.

As this section demonstrates, context matters when using an intersectional lens on food security. This is also important to understand the connections between "individual and group experiences of identity-based disadvantage to systemic mechanisms of 'privilege and dis-privilege'" (Ajele & McGill, 2020, p. 21). The following section explores a different policy context affecting the health and food security of trans individuals in Canada.

IV – Transgender Experiences, Food Insecurity and Sex Work in Canada

In Canada, food insecurity disproportionately affects two-spirited, lesbian, gay, bisexual, transsexual, queer, intersexual, asexual and other diverse sexual orientations and gender identities (2SLGBTQIA+) who face stress, isolation and systemic discrimination across employment, housing, and social services (Gibb et al., 2024; Thériault et al., 2025). Similar patterns are evident elsewhere, where discrimination based on sexual orientation and gender diversity undermines multiple dimensions of food security, including accessibility, adequacy, and agency (Patterson et al., 2020; Russomanno et al., 2019).

Transgender and bisexual individuals are at especially high risk of food insecurity (Gibb et al., 2024; Nascimento et al., 2026), and many are pushed into survival strategies such as sex work to secure basic needs, highlighting deep structural barriers to acceptable and reliable food access and exposing them to additional stigma (Coronel-Villalobos & Saewyc, 2019; Masa et al., 2023). With a focus on agency, this section discusses the impacts of systemic discrimination and harmful policies on the food security of transgender sex workers, as well as community responses and the need for more research.

Systemic Discrimination and Food Insecurity

Transgender and gender non-conforming (GNC) identities are underrepresented in research (Stenersen et al., 2025). Generally, 2SLGBTQIA+ identities are lacking in nationwide food insecurity data, with research including the Canadian Income Survey (CIS) often assuming a heteronormative nuclear family as the default (Right to Food, 2025). Even with a national knowledge gap concerning specifically Two-Spirit, trans, non-binary, queer, and intersex people, Right to Food (2025) concluded, based on existing evidence, that there existed distressingly high rates of Household Food Insecurity (HFI) because of poverty and employment discrimination, expressed particularly among trans and bisexual populations.

Faith-based emergency food organizations, often perceived as discriminatory, further discourage 2SLGBTQIA+ individuals from seeking assistance, reflecting historical and systemic exclusion (Patterson et al., 2020; Russomanno et al., 2019). Financial precarity, marked by high unemployment, low incomes, and lack of family support, compounds these challenges, while a "greater prevalence of poor mental health…, some chronic diseases, sexually transmitted and blood-borne infections, and alcohol abuse" further exacerbates nutritional struggles (Hou et al., 2024; Kirby & Linde, 2020). These barriers are then magnified for individuals experiencing additional forms of marginalization, such as racism, sexism, ableism, or colonialism and further affect their ability to access adequate food (Hou et al., 2024; Rauh et al., 2025).

Transgender individuals in Canada consistently face lower incomes compared to all sexual and gender minority groups (Kinit et al., 2023, as cited by Spiteri, 2024), disproportionately live in low-income neighbourhoods, and face "prolific transphobia and bias in the labour market, resulting in harassment, exclusion and poverty" (Spiteri, 2024). Additionally, transgender individuals in Canada face significant barriers to employment, such as employment discrimination and workplace harassment (Waite, 2021, as cited by Spiteri, 2024), in parallel to structural barriers

such as "the presence of a dead (former) name on credential documentation and challenges accessing references for work experience before their transition" (Kinit et al., 2023, as cited by Spiteri, 2024). Overall, transgender persons in Canada face poorer economic outcomes (Rauh et al., 2025), and therefore lower food security. Push factors such as low employability and experiences of discrimination result in a sex-work trap for trans individuals, especially youth (D'Ippoliti & Botti, 2017). Interventions tailored to trans and GNC individuals must address these financial and systemic barriers while ensuring inclusivity and cultural sensitivity, or they risk perpetuating the circumstances that limit agency where it could be strengthened.

Sex Work as a Survival Strategy

Systemic discrimination and economic precarity create environments that limit accessibility, adequacy, and agency, as many trans individuals are made to rely on sex work as a survival strategy, where some exchange sex for basic resources like food (Coronel-Villalobos & Saewyc, 2019; Masa et al., 2023; Nascimento et al., 2026). Factors such as family rejection, homelessness, and welfare participation disproportionately impact those with intersecting marginalized identities, including Black, Gender Non-Conforming, and disabled individuals (Masa et al., 2023). While sex work can offer financial autonomy and empowerment for some, trans sex workers, particularly women of colour, face heightened risks of violence, transmisogyny, racism, and stigma because of their identities, with an increased likelihood for those who participated in street-based sex work (Masa et al., 2023). These vulnerabilities extend beyond the workplace to intimate and family relationships, where abuse and economic dependency often persist (Masa et al., 2023). Migration and asylum can offer an avenue of escape from sex work and sexual violence but may also introduce new forms of instability, victimization, and food insecurity due to the new environment's potentially restrictive immigration laws and precarious employment conditions, which are common in food-related sectors (Ussher et al., 2022).

While stigma affects all sex workers, those who are trans experience compounded challenges due to intersecting oppressions and face a "disproportionate burden of violence, with significant variations across social, cultural, and economic contexts" (Lyons et al., 2015). Considering the limited evidence on rates of food insecurity among cis and trans women sex workers, Barreto et al. (2018) researched 761 cisgender and trans women sex workers in Vancouver. Results demonstrated that a quarter of participants were "self-identified gender/sexual minority, and were more likely to be food insecure than heterosexual, cisgender sex workers" (p. 608). Furthermore, a third of the study participants reported losing weight and having hunger pains over the previous six months because they could not afford food. Almost 10% reported they had exchanged sex for food in the previous six months (Barreto et al., 2018, p. 608). The study concluded that "structural barriers of criminalization and stigma, previously shown to create poor working conditions and isolated and exploitative housing for sex workers, may undermine sex workers' access to a basic human right to adequate and secure access to food" (Barreto et al., 2018, p. 610). Overall, systemic reforms are urgently needed to protect the rights, dignity, and safety of trans sex workers while addressing the root causes of discrimination and economic precarity.

The Impact of Canadian Sex Work Policies on Trans Health and Food Security

A national study comparing transgender persons who were sex workers with those who were not concluded that transgender sex workers were more likely to live in poverty, have a disability, report poor health, and experience discrimination and violence in comparison to their counterparts (Navarro et al., 2021). Canada currently adopts the 'Nordic model' policy towards sex workers (Kingston & Thomas, 2019), with legislation that targets clients instead of sex workers. Although this appears as a protective policy, the reality is that sex work is still criminalized, and trans gender sex workers remain concerned about "being stopped or harassed by police or security" (Navarro et al., 2021). Indigenous, Black, racialized immigrants, non-binary and trans sex workers are especially vulnerable to such

criminalization. The current policy focuses on the punishment of surrounding actors over supporting victims, leaving trans sex workers particularly vulnerable as their means of survival is forcibly removed from them (Government of Canada, 2015). Similarly, Canada's food policies offer only vague commitments to gender inclusivity, overlooking the specific needs of marginalized communities like trans individuals (Government of Canada, 2020).

The criminalization of sex work under current laws forces workers into unsafe environments, increasing risks to their health, safety, and capacity to influence their own lives and personal agency. These policies parallel broader global efforts, such as the U.S.-based Project 2025, which seeks to dismantle 2SLGBTQIA+ protections and vilify trans identities (Meisler, 2024). While Canadian policies may appear less overtly hostile, they perpetuate stigma and systemic inequalities. This disproportionately harms trans and GNC sex workers due to intersecting identities and exacerbates food insecurity by considering all sex workers as victims and all clients and third parties as criminals (Lam, 2022). Doing so can undermine sex workers' agency by framing them primarily as victims whose choices must be made for them. It can also reinforce stigma while diverting attention from the systemic conditions that may push marginalized populations into precarious work for survival. Effective reforms must affirm the autonomy and dignity of marginalized communities, addressing systemic barriers while ensuring full decriminalization of sex work, and inviting trans sex workers to discuss sex work law and policy.

Community-Led Solutions and Ways Forward

Regarding policy, public health solutions should implement employment non-discrimination measures to protect trans and GNC people in both the workplace and sectors like health care; for example, with sex workers in these groups reporting cases where providers were trans-affirming but not sex-work-affirming (Navarro et al., 2021). Policy reforms, however, tend to be long and arduous processes. Community-led alternative solutions have historically helped ensure the food security of minority populations by building relationships between local food pantries and 2SLGBTQIA+ organizations to create a safer, more local, and more empowering environment for all persons in need of food assistance (Hou et al., 2024; Russomanno et al., 2019). One example is Meal Trans in Toronto, which offers a weekly "affirming drop-in program for lower-income, street-active, homeless and sex-working 2 Spirit, trans, non-binary, genderqueer, and questioning folks" (The 519, 2022), enabling not only community connections but also access to referrals and supports. This reflects what occurs on the individual scale: support networks such as the "chosen family," a set of friends and some family members, playing an important supporting role in providing "emotional support, physical, food, and financial resources, as well as assistance in obtaining government benefits" (Nascimento et al., 2026). Community-building efforts, such as community gardens, also play a critical role in addressing food insecurity by fostering empowerment and self-determination through representation (Lovell et al., 2014; Turner et al., 2011). These initiatives give transgender communities visibility and agency.

Systemic discrimination, sex work, and punitive policies intersect to create substantial barriers to food security for trans people in Canada. Discrimination drives economic instability, pushing many trans individuals into survival-based sex work, which is further stigmatized and criminalized under Canadian law. This approach reinforces systemic hierarchies rooted in transmisogyny, racism, and inequality, exacerbating vulnerabilities that may arise in other socio-political contexts. Addressing these issues requires systemic change that prioritizes trans autonomy and wellbeing, in other words, agency. Community-led solutions, inclusive policy language, and equitable access to resources like food, housing, and employment are essential. Governments must shift from punitive frameworks to empowerment-based approaches, ensuring trans individuals can live authentically, with their health, safety, and dignity protected.

V – Conclusion

Conventional approaches to food security can obscure how people's ability to access food and exercise agency is shaped by intersecting structures of colonialism, ableism, racism, gender, age, sexuality, income, and public policy. Using a decolonial and intersectional approach to understanding food insecurity highlights why these inequities persist, whose experiences dominant frameworks render invisible, and whose agency is recognized in designing solutions.

This chapter offered reflections on the enduring value of using an intersectional and decolonial lens to examine food security in the 21st century. This chapter shows that by centring the voices and contributions of Indigenous and Black communities, Canada can move beyond short-term solutions toward a more sustainable and equitable food system. Furthermore, recognizing and empowering these communities will be crucial for shaping the future of food security in Canada and beyond. This chapter also compares different methods for measuring poverty and food insecurity and proposes a multidimensional measurement approach that goes beyond income and accounts for differences among seniors in Canada. The chapter also argues that criminalization of sex work reinforces systemic hierarchies rooted in transmisogyny, racism, and inequality, exacerbating vulnerabilities and creating substantial barriers to food security for trans people in Canada.

Despite differences, all three dimensions discussed the "complexity of disadvantage associated with multiple identities" (Ajele & McGill, 2020, p. 21), and how they relate to systemic mechanisms of "privilege and dis-privilege" (Ajele & McGill, 2020, p. 21). Together, they demonstrate that food insecurity cannot be fully understood without attention to the intersecting structures that shape both vulnerability and agency. By bringing these dimensions to the surface, we argued that the diverse voices enabled by an intersectional lens deserve not only greater awareness and visibility but also more research and policy support.

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8. Haudenosaunee Worldviews of Food Sovereignty, Governance and Security: Towards More Just and Sustainable Food Systems

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Abstract

Food sovereignty has emerged as a central framework for advancing Indigenous self-determination, including Haudenosaunee self-determination, cultural revitalization, and reconciliation. This chapter explores Haudenosaunee perspectives on food sovereignty, governance, and food security through interviews with community leaders from Six Nations of the Grand River conducted as part of a broader SSHRC-funded project examining the legacy of the Mohawk Institute Indian Residential School. Using a strengths-based qualitative approach grounded in the Two Row Wampum Research Paradigm as a Haudenosaunee relational framework, and informed by Two-Eyed Seeing within a collaborative Indigenous and non-Indigenous research relationship, we examine how community-led food initiatives contribute to healing, cultural continuity, and self-determined food systems. Findings are organized around the Five Rs of Indigenous research: Respect, Relevance, Reciprocity, Responsibility, and Relationship. Participants describe food security as extending far beyond access to sufficient food, emphasizing relationships with land, language, ceremony, knowledge transmission, and collective responsibility. Their experiences reveal how food sovereignty is enacted through grassroots initiatives that revitalize traditional foodways, strengthen intergenerational learning, support community governance, and rebuild relationships disrupted by colonialism and residential schools. Two additional Rs—Resilience and Reclamation- emerged from collaborators' accounts, extending the analytic framework and highlighting the enduring strength of Haudenosaunee knowledge systems and ongoing efforts to reclaim food, culture, and governance. The chapter argues that Indigenous food sovereignty, as demonstrated through Haudenosaunee food sovereignty, is fundamental to reconciliation because it restores agency, supports Nationhood and self-determination, and challenges deficit-based approaches to food security. These findings demonstrate the importance of Indigenous-led and, more specifically, Haudenosaunee-led, culturally grounded food systems in advancing more just, sustainable, and relational approaches to food policy and community wellbeing.

I – Introduction

Expanding the public dialogue and action on reconciliation in Canada is critical for building a shared future that includes the experiences and aspirations of Indigenous peoples. The 94 Calls to Action of the Truth and Reconciliation Commission (TRC) itemize the work required to redress the legacy of residential schools and advance Canadian reconciliation (Truth and Reconciliation Commission of Canada [TRC], 2015a).

This chapter explores insights from interviews conducted as part of a larger research project that aims to further understanding of truth and reconciliation in the context of gardens, farming, and food experiences at the Mohawk Institute Indian Residential School in Brantford, Ontario. Our SSHRC-funded Insight Development Grant supported the larger project, "Truth Telling: Gardens, Farming and Food experiences at the Mohawk Institute," in which we listened to stories shared by survivors, their adult children, and community leaders working on food security initiatives.

The research team, composed of Indigenous and non-Indigenous scholars, believes that research as reconciliation is possible when the team takes the time to meaningfully engage with community collaborators to co-create knowledge (Freeman & Van Katwyk, 2020). Community leaders were asked about their food security initiatives and recommendations that encompass truth, reconciliation and self-determination of Indigenous peoples.

The objectives of this chapter are a) to describe, based on interviews with community leaders engaged in food systems work within the community of Six Nations; their perspectives on food security and food sovereignty; experiences and reflections on community food initiatives and systems; and b) to frame their insights according to the five Rs of Indigenous research: Respect, Relevance, Reciprocity, Responsibility, and Relationships. Ultimately, this research reveals how food sovereignty from a Haudenosaunee worldview is rooted in grassroots food movements that acknowledge historic truths; engage local producers, knowledge holders, learners and community members; draw on core values around environmental and cultural sustainability – the Seventh Generation vision; and uphold self-determination of Indigenous peoples.

II – Canada's Dark History

The Truth and Reconciliation Commission documented experiences of Indigenous children forced to work in gardens and farms during their school years in Canada's Indian Residential schools (TRC, 2015a). These experiences exemplify colonial forces of oppression, including enforced child labour and substandard education. Children worked half a day in on-site gardens and farms or in the kitchen. Testimonials describe how children were denied access to the healthy foods they were tasked with harvesting during the work-hours portion of their "education" (TRC, 2015b; TRC, 2015c). The children were subjected to an inadequate diet that hindered healthy growth and development during their time at Indian Residential School (Mosby & Galloway, 2017; Mundel & Chapman, 2010). The bounty of farming and garden initiatives at Indian Residential School was either used to feed the staff or sold to generate income to support the upkeep of the school itself (Mosby & Galloway, 2017; TRC, 2015b; TRC, 2015c). We reiterate the importance of exploring the perspectives on, and updates on, community gardens within Indigenous contexts, as this history suggests there are painful, complex factors for health promoters and other proponents of community gardens to consider. Knowing these Truths will better equip health promoters in their efforts to support Indigenous-led farming and gardening initiatives that reconcile past harms associated with Indian Residential Schools.

III – Defining Food Security and Food Sovereignty From Indigenous Perspectives

Conventional definitions of food security generally emphasize the availability, access, utility, and stability of food. Most definitions of the topic align with recognized institutional frameworks, such as those of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO), which define food security as access to safe, nutritious, and culturally appropriate food at all times (see Food and Agriculture Organization [FAO], 1996; World Health Organization [WHO], 2022). These definitions convey that food security is based on access and availability; however, they often overlook other critical dimensions such as adequacy, acceptability, and agency. The 5As framework (Availability, Accessibility, Adequacy, Acceptability, and Agency) offers a more holistic understanding of food security (Koç, 2024). It pushes beyond just having food nearby or being able to afford it. It asks, "Is the food nutritious?" Does it align with someone's culture and values? Moreover, importantly, do people have a say in how their food is grown, accessed, or shared? Agency, in particular, is essential because it considers people's ability to shape and control their own food systems. This emphasis on agency creates a natural point of connection between food security and food sovereignty, as the latter focuses more directly on communities' rights to self-determination, governance, and control over their food systems.

Some authors, such as Pachón-Ariza (2013) and Jarosz (2014), note that food security is often framed within global trade policies, focusing on stable food supplies and economic accessibility. Economic disparities are often tied to food security, where those with higher household food expenditures as a proportion of income, or those in remote settings facing inequitable pricing, are more likely to experience greater food insecurity, manifesting in chronic hunger and malnutrition, as emphasized by Ogundiran (2019). Although these definitions capture an important aspect of food security, they do not reflect the full picture or what food security means in different communities.

Several Indigenous scholars centring Indigenous perspectives critique mainstream food security definitions for overlooking traditional food systems. Delormier and Marquis (2019) emphasize that Indigenous food security must include access to traditional foods, land, and intergenerational knowledge transmission. Similarly, Cidro et al. (2015) argue that food security for Indigenous communities involves more than just availability and affordability. It must also include culturally appropriate foods and the capacity to sustain and maintain Indigenous food practices. This does not translate solely into having Indigenous and culturally appropriate foods available for consumption, but also into access to traditional knowledge and practices related to harvesting, preparation, and ceremony associated with food. Works such as Whitlow et al. (2019) and Jonathan et al. (2022) highlight how education and knowledge transmission are integral to Indigenous food security, ensuring cultural continuity and empowering communities to maintain traditional diets and practices.

Canada traditionally measures food security using the Household Food Security Survey Module (HFSSM) as part of the national Canadian Community Health Survey (CCHS), which relies on narrow indicators like income and food access. Moreover, it fails to acknowledge the communal orientation of Indigenous food systems, such as sharing the harvest. Nor does it account for the costs associated with procuring, sorting, and preparing foods from the land, nor the communal orientation of Indigenous food systems, such as sharing the harvest (Domingo et al., 2021). Knowing that HFSSM does not measure traditional food access, the First Nations, Nutrition and Environment study (FNFNES), initiated in 2008, includes indicators related to Indigenous food sovereignty using additional questions that addressed the barriers and enablers to obtaining traditional food and the control over access and sufficiency of traditional food (Batal et al., 2021).

Food Secure Canada (2012) sees food security as a means to fulfil its vision of zero hunger, healthy and safe food, and a sustainable food system, while food sovereignty guides it. Food security and food sovereignty are different in some key ways:

1. Food sovereignty is rooted in grassroots movements;
2. Food sovereignty highlights the need for a democratic food system, one that involves inputs from citizens as well as producers,
3. Food security concerns the protection and distribution of existing food systems, whereas food sovereignty emphasizes self-determination toward more sustainable and equitable alternatives (Food Secure Canada, 2012).

Gordillo de Anda and Méndez Jerónimo (2013) and Júnior (2020) emphasize that food sovereignty is a community right to govern its own food systems, ensuring local control over agricultural policies, food production, and distribution. These practices could help evolve the current framework through which food security is viewed and assessed, especially given that existing policies are usually shaped by neoliberal economic frameworks that prioritize trade liberalization and corporate interests over local food systems (Júnior, 2020). Similarly, Gordillo de Anda and Méndez Jerónimo (2013) argue that food sovereignty prioritizes small-scale food production, sustainability, and local governance as an alternative to corporate-driven food security policies.

Indigenous scholars describe how food sovereignty is deeply tied to land rights, traditional knowledge, and cultural revitalization (Cidro et al., 2015; Coté, 2016; Ferrando et al., 2020; Jonathan et al., 2022). Coté (2016) and Jonathan et al. (2022) discuss how Indigenous food sovereignty involves restoring traditional food systems and reestablishing relationships with the land. Food sovereignty can be framed as a response to the disruption of Indigenous governance and foodways due to colonialism (Ferrando et al., 2020), which is why legislation plays an important role in supporting Indigenous food sovereignty because legal recognition can help protect traditional food practices from external

economic pressures (Cidro et al., 2015). From a Haudenosaunee perspective, our chapter describes the self-determined efforts toward food sovereignty by a select group of community members.

IV – Broad Overview of Six Nations

The overarching goal of this strengths-based qualitative study is to further understanding of Truth and Reconciliation in the context of food security issues in Canada's largest First Nations: Six Nations of the Grand River, a Haudenosaunee community located in southern Ontario.

Six Nations of the Grand River, one of Canada's largest First Nations reserves by population, houses over 13,000 on-reserve residents, with a total registered population of over 27,000 (Government of Canada, 2025). It is distinct in being home to all six Haudenosaunee nations: Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora (Government of Ontario, 2021). Six Nations governance includes both a traditional council representing the Haudenosaunee Confederacy Chiefs and Clan Mothers and an elected federal band council, blending Indigenous governance with colonial-imposed structures (Haudenosaunee Confederacy Chiefs Council, 2018). This dual governance plays a crucial role in Six Nations' resource management and food sovereignty initiatives.

Haudenosaunee of the Six Nations of the Grand River have long been moving where they need to be regarding accessing sustenance for their Nations. In doing so, they have encountered many other Nations and, later, colonizers such as the British Crown. In a shared spirit, Haudenosaunee ensured that the Crown had an understanding of our relationship to this sustenance, as written by Susan Hill: "Therein the Crown recognized the expansive hunting territories of the Haudenosaunee north of Lake Ontario and surrounding Lake Erie, encompassing all of southern Ontario, most of central Ontario, and much of the Ohio River Valley" (2009). The British Crown conceded the land for use by Six Nations, six miles on each side of the Grand River from the mouth to the source (Six Nations Lands and Resources, n.d.). Hill (2009) documents how colonial incursions disrupted long-standing traditional practices, undermining the community's connection to its ancestral food sources and contributing to ongoing challenges in sustaining cultural foodways.

The land rights of Six Nations originate from the 1784 Haldimand Treaty, which allocated a tract along the Grand River (Six Nations Lands and Resources, n.d.). Originally spanning approximately 950,000 acres, Six Nations currently retains about 5% of this land due to ongoing infringement and land mismanagement by the Crown, which remains a significant legal and social concern (Antonacci, 2024b; Six Nations of the Grand River, 2019). Ferrando et al. (2020) emphasize that land should be understood as a shared commons integral to cultural and ecological sustainability, and that its mismanagement adversely affects essential resources. Even today, these land issues affect access to water: only a third of households are connected to safe drinking water, forcing many residents to rely on alternative sources that may be contaminated (Acquisto & Bond, 2022; Bernstein, 2024).

Historical Context

The Haudenosaunee Confederacy, also known as the Iroquois or League of Nations, was founded to unify Indigenous nations under the Great Law of Peace (Haudenosaunee Confederacy Chiefs Council, 2018). The Confederacy's core values, such as the Seventh Generation Principle, emphasize long-term sustainability and resource stewardship, which are central to the Six Nations' food sovereignty movement (Tait-Neufeld & Xavier, 2022). The focus on sustainable, intergenerational practices is reflected in Exploring Indigenous Foods & Food Sovereignty, which connects cultural continuity with resilient food systems (Jonathan et al., 2022). The Mohawk Institute Residential School, often referred to as the "Mush Hole," operated from 1828 to 1970 and was Canada's first residential school (Graham, 1997). The institute significantly impacted Haudenosaunee culture, disrupting family structures and detaching community members from

traditional food knowledge and practices, contributing to food insecurity in subsequent generations (National Centre for Truth and Reconciliation, 2023). The legacy of cultural disruption continues to inspire community-led initiatives to restore traditional practices and reclaim lost cultural knowledge (Hill, 2009). Such colonial impacts on cultural knowledge underscore the importance of current food sovereignty initiatives to restore Indigenous food practices.

Current Context

The Six Nations community has responded to food insecurity through grassroots food sovereignty projects that address both access and cultural reclamation. Programs like Healthy Roots and Our Sustenance aim to reconnect the community with traditional foods, offering Haudenosaunee-grown produce and educational workshops on traditional farming, foraging, and food preservation (Population Health Research Institute, 2021; Feast House, n.d.). Healthy Roots, established in 2015, promotes a diet based on pre-contact foods, excluding colonial-introduced items such as refined sugar and flour. The initiative fosters health and cultural pride, reflecting the broader movement for Indigenous food sovereignty that aligns food practices with cultural values (Tait-Neufeld & Xavier, 2022). The model presented in Healthy Roots: Building Capacity through Shared Stories (Gordon et al., 2018) illustrates how such grassroots efforts improve health outcomes and reinforce cultural resilience and pride.

Additionally, educational institutions and language revitalization efforts play a pivotal role. Kawenni:io/Gaweni:yo Private School, which offers immersion in the Cayuga and Mohawk languages, reinforces Haudenosaunee cultural identity, which is interwoven with food traditions (Antonacci, 2024a). This cultural education, combined with community-led food projects, empowers Six Nations residents to reclaim their heritage and strengthens intergenerational knowledge transfer (Feast House, n.d.). Moreover, the educational initiatives described in Yehyatonhserayenteri (Whitlow et al., 2019) demonstrate how integrating traditional pedagogies fosters a holistic understanding of food sovereignty, thereby supporting the community's revitalization efforts.

As Six Nations language revitalization grows, so have the programs and delivery at Mental Health Services and Youth Initiatives in the community. Revitalizing Our Sustenance was founded by a young Indigenous woman, Denise Miller, who, with access to her family's land and gardening equipment, created a space to guide and develop the next generations of Haudenosaunee farmers on Six Nations of the Grand River. Her alignment with the local Universities, where her friends and colleagues attended, supported cross-cultural initiatives that brought non-Indigenous students to Six Nations to learn from youth and elder Haudenosaunee knowledge keepers. From soil to table, her programs and teachings offered space for Haudenosaunee knowledge keepers, chefs, and farmers to revitalize and care for traditional seeds.

The language of revitalization has also supported programs within the Six Nations Council's mental health and wellness services. Land-based learning programs such as egawadiyadagenha "they will be helping" (in Cayuga language) bring traditional knowledge sharers from the Six Nations community to lead and model cultural activities such as snow snake, lacrosse, spear fishing and traditional language use throughout all activities (Six Nations Department of Wellbeing, n.d.)

Six Nations' approach to food sovereignty is a multifaceted response to colonial impacts on land and cultural practices. The community's initiatives highlight a holistic vision of health, embracing both physical sustenance and the preservation of Haudenosaunee identity through sustainable food systems. Collectively, these efforts, rooted in traditional governance, resilient historical memory, community-led food programs, and culturally grounded education, reinforce the critical importance of Indigenous-led initiatives in reclaiming and sustaining food systems (Hill, 2009; Monture, 2020).

V – Methods

The 5As of food security define agency as: The policies and processes that enable the achievement of food security (Centre for Studies in Food Security, n.d.). Menezes (2001) and Jarosz (2014) discuss agency, or self-determination, as an essential element of food security. This speaks to an individual or community's ability to respond to their own food needs in ways that align with their cultural and personal preferences. For example, for Indigenous peoples, agency could be defined as freedom from dependence on a colonial, market-based food system and the transition to traditional Indigenous food systems (Coté, 2016; Robin, 2019). When engaging in strengths-based research focused on agency or self-determination, we used the 5Rs in Indigenous research within our overarching framework: Respect, Relevance, Reciprocity, Responsibility, and Relationship (see University of British Columbia, 2021, 2023). To be elaborated on later in this section in our sense-making process.

The overarching theoretical approach encompasses a Two-Eyed Seeing perspective, which is described by Martin (2012) as a challenge to researchers (Indigenous and non-Indigenous) to understand the larger dimensions (physical, emotional, spiritual) of our knowledge systems and the limitations and challenges that accompany any single approach to viewing the world (p. 36). This framework is particularly relevant in research involving the legacies of residential schools and the reclamation of foodways at Six Nations, where spiritual and land-based knowledge systems remain central to community healing (Peltier, 2018; Roher et al., 2021).

Aligned with the Two-Eyed Seeing perspective, the Two Row Wampum paradigm provided a foundational guide throughout the research as a Haudenosaunee-specific framework emphasizing the importance of relational accountability, coexistence, and parallel paths between Indigenous and settler knowledge systems, each travelling side by side, neither interfering nor assimilating the other (Freeman & Van Katwyk, 2020). Using Haudenosaunee principles was especially significant when navigating the intersection of traditional food knowledge and institutional histories, such as those surrounding the Mohawk Institute Residential School (Freeman & Van Katwyk, 2020)

The theoretical orientation is grounded in Indigenous relationality; the methodological design draws on Kovach (2009), who outlines how tribal-centred Indigenous methodology is rooted in story, protocol, and community-specific contexts. Kovach (2009) emphasizes:

> Research resulting from an Indigenous paradigm should include a strong narrative component in both the method and the presentation of findings. At times, Western analytic tools such as coding or thematic grouping may be used alongside narrative approaches, with full transparency about their epistemological limitations and acknowledgment that they do not represent Indigenous ways of knowing (p. 35).

The concept of skanikonhra, or "coming to be of one mind," as described by Sunseri (2011), further shaped the theoretical commitment to consensus-building and collective wellbeing. Within the Haudenosaunee worldview, this involves more than agreement; it is an ethical process of aligning with Creation, responsibilities, and each other—particularly in contexts of cultural disruption and reclamation.

An Indigenous epistemological approach to research is the Two Row Wampum research paradigm. Since the project involves a Haudenosaunee community, it is appropriate to employ a Two Row Wampum Research paradigm. Dr. Bonnie Freeman further developed the Two Row Wampum Research paradigm while working with Indigenous communities alongside non-Indigenous colleagues, resulting in both researchers acknowledging their respective positionalities while merging into a joint space of critical consciousness through reflective communication and expression (Freeman & Van Katwyk, 2020). The Two Row Wampum Research Paradigm allows us to honour how we as a research team 'come to being again of one mind' (see Sunseri, 2011) in the context of research that is framed by respecting Haudenosaunee foundational principles of alliance building by upholding peace, friendship and respect for one another (Freeman & Van Katwyk, 2020; Hill & Coleman, 2019). While the original intent of the Two Row Wampum is a treaty agreement between nations to coexist in peace, friendship and respect for one another as they travel down the river of life together, this same intent can be applied to any relationship, in particular among researchers (Indigenous and non-Indigenous) who are working together to find solutions to problems identified by the community (Freeman & Van

Katwyk, 2020). Conducting research using an Indigenous paradigm benefits the community by promoting cultural protocols, respectfully recentering Indigenous knowledge, and aligning with Indigenous ethical codes (Getty, 2010). Centring culture is a strong starting point, as it reconfigures the research approach to privilege the agency of all things relational (Martin, 2017).

Research can be reconciliatory when it acknowledges historical injustices, centres Indigenous voices, and builds relationships grounded in mutual respect, trust, and shared benefit. Indigenous communities have long been thinking about the issues that affect them. Therefore, the researchers involved in the project must engage meaningfully with the Indigenous community throughout all stages of the project, from research design to dissemination of the results (Brant Castellano & Reading, 2010; Ermine et al., 2004; Schnarch, 2004; Vogel, 2015). This creates a paradigm shift in present-day research practices, in which Indigenous communities are demanding participatory, community-based, and action-oriented approaches to health research. They also call for research processes and methodologies that reflect the needs, issues, and concerns of community members themselves (Bull, 2010; Kovach, 2009; Maar et al., 2011). As such, community collaboration is central to this project's methodology.

Interview Guide

The research team of Haudenosaunee (BF, TLM, SJ) and non-Indigenous members (RH, JY) developed a semi-structured interview guide with input and approval from community advisors: Rick Hill, Chandra Maracle and Sherlene Bomberry (who is a residential school survivor and active member of the Survivors Secretariat and board member). The Survivors Secretariat was established in 2021 to organize and support efforts to uncover, document, and share the truth of what happened at the Mohawk Institute during its 140+ years of operation. Chandra Maracle and Rick Hill are food activists in the Six Nations community. Bonnie Freeman is a Six Nations member and Associate Professor at McMaster University, and Teri Morrow is a master's-trained registered dietitian. Teri is also a member of Six Nations, and with her in-depth knowledge of the community, she was instrumental in purposely sampling collaborators. Sandra Juutilainen is a Oneida Nation of the Thames member and Assistant Professor at Toronto Metropolitan University with a longstanding working relationship with Six Nations as a registered dietitian and researcher. Rhona Hanning and Jennifer Yessis are faculty members at the University of Waterloo. The community advisory committee approved the final interview guides for residential school survivors, adult children of survivors, and community stakeholder interviews.

Ethics approvals were obtained from the Six Nations Band Council, University of Waterloo (ORE # 40637), McMaster, and Toronto Metropolitan University.

Collaborators (i.e., those we interviewed) were purposively selected by members of the research team who reside in the community of Six Nations (BF, TM) based on people known to be actively engaged in the local food systems at Six Nations. Of the eight collaborators interviewed, all are Indigenous with a long-standing history of work in the Six Nations community related to food; seven of the collaborators live in the community, and one has long-standing employment within the community. The different roles collaborators have in the community food systems include: a knowledge guardian[1], managing community health programs, developing and running culture-based education/school programming, land-based cultural programming for youth, community gardening, a chef who focused on using Haudenosaunee foods, and the Six Nations Farmers Association.

Interviews were conducted at Six Nations between January 2020 and February 2020 by SJ and TM, using a conversational approach (Kovach, 2009). Interviews were guided by questions approved by the community advisors and audio-recorded with each participant's permission, then transcribed by the Flying Fingers transcription service.

The first step of our analysis was for all members of the research team to complete a close reading of all eight

1. For a more detailed description of a definition of an Indigenous knowledge guardian, see: https://www.snpolytechnic.com/knowledge-centre/indigenous-knowledge-guardians

collaborator interview transcripts. Two members of the analysis team (JY and RH) used the semi-structured interview guide to frame coding deductively. For example, questions regarding food security and food sovereignty from the script served as initial codes. Members of the analysis team (RH and JY) also used an inductive coding strategy, also known as an "open coding" or a "data-driven" process, while respectfully reviewing the transcripts (Creswell & Creswell, 2008; Braun & Clarke, 2012). This highlighted the importance of representation and centring collaborators through their transcriptions to speak on their own behalf. "Representation of Indigenous communities empowers them to identify and share what is relevant and important to their people. It allows the voice of the community and each participant to be heard (Tsosie et al., 2022, p. 3)."

After reviewing the open codes, alignment with the 5 Rs of Indigenous research (Peterson, 2023; Saskatchewan NEIHR, 2023) became apparent; therefore, we used this to frame the themes emerging from the inductive coding. Based on our process, we used the 5Rs as a guide (University of British Columbia, 2023) and then redefined what each R meant according to how collaborators described their experiences. See below each "R" and its definition:

- Respect: Honour cultural practices, worldviews, and protocols (respect for people, traditions, culture, land)
- Relevance: Ensure alignment with community needs
- Reciprocity: Foster mutual benefits and exchange of knowledge (future generations)
- Responsibility: Ethical research practices and accountability (responsibility to future generations – that is the community perspective)
- Relationship: Build trust and meaningful partnerships (relationships include with other community members, land, culture)

Where overlap appeared between the 5 Rs, content was identified as the most dominant theme or attached to more than one R. Further discussion based on the revealed themes and quotes selected to support each theme then occurred with three members of the research team (RH, JY, SJ). Quotes chosen were reviewed and accepted or changed (BF, TM)

The perspective of TM informed final decisions regarding the inclusion and framing of participant quotes; TM is a Haudenosaunee researcher and community member from Six Nations who maintains lived, familial, and governance relationships with the land, waters, and people of the territory. This relational positioning strengthened the analysis by grounding it in community-specific cultural knowledge, values, and responsibilities. TM's understanding of the participants and the broader context in which their stories were shared enabled a careful selection of quotes that reflected not only thematic alignment but also the integrity and resilience of community voices. This approach ensured that the narrative emphasized strength, continuity, and self-determination, thereby countering extractive or deficit-based framings that often dominate research involving Indigenous communities. The selection process was guided by a commitment to ethical storytelling, cultural continuity, and respect for participants' lived realities.

VI – Findings: Collaborators' Perspectives on Food Security and Food Sovereignty

In each interview, collaborators were asked to define what food security meant to them. While participants were not asked directly about food sovereignty, they were asked about food programming that would encompass self-determination. Food sovereignty aligns with self-determined food programming. In the eight interviews, ideas about "enough food", "access", "readily available food", and "you don't have to ask anybody for anything" were mentioned as important aspects of food security. However, beyond availability, many responses also emphasized the importance of healthy and sustainable relationships around food.

One of the collaborators provided more depth to their response by saying that "food security would be like me passing on my knowledge to my younger ones and trying to show them the ways that I was taught. Like through…gardening and how we look after our animals and respect them. And just trying to keep that alive pretty much" (Collaborator A).

Another noted that "food security to me is how we feed our nations and our families, and how we're using culture in

food security to revitalize and build on our connection with the land. Um, because food isn't just food. Food is like I have a responsibility" (Collaborator E).

Another collaborator said:

> Well, for food security, for me, it's you don't have to ask anybody for anything. You have everything you need. It's not that you have to have everything that you need, but you have a source for everything you need. Right? Like, I might grow two kinds of corn, but if I want this third one, I know so-and-so grows it, and I would trade them. Right? Everything we do, we barter. Like we don't just give people stuff (Collaborator G).

Collaborators described food sovereignty as concepts related to understanding and teaching others about the origins of Haudenosaunee food, making informed, culturally rooted food selections, revitalizing Indigenous methods and traditional food, and sharing the spiritual connection to food and self/community sufficiency. Collaborator D describes the actions she is involved in for "gathering like on the land, hunting, harvesting, food preparation, food preservation, using Haudenosaunee foodways to emphasize traditional teachings." Another collaborator emphasizes that their role is to "promote best practices in creating edible food that goes into people and animals and helps to maintain the land so that it stays fertile for the next crop season and the next generation." They also want to "pass on [my] knowledge to other younger people. And the preservation of white corn and beans and edible foods that we can grow on the territory" (Collaborator C).

Another describes the ease with which she teaches her community members about traditional food preparation: "I'm like, ' I'm going to show you how to do it like in a pot on your stove for enough that that's what you're going to need. You might have some leftover, and you can freeze it.' Right? Because everybody makes it this big, intimidating thing and it's like, well, that's why we lost it because everybody thinks it's a big deal" (Collaborator G).

Table 1 summarizes what was mentioned across collaborator interviews, highlighting their perspectives on food security and food sovereignty.

Table 1: Summary of Community Collaborator Perspectives of Food Security and Food Sovereignty

Perspective of Food Security	***Perspective of Food Sovereignty***
Passing on knowledge to younger generations, respecting and looking after animals and gardens.	Providing traditional food to families and community programs, maintaining cultural food practices.
Having readily available food within a local space, easily accessible to the community.	Encouraging self-sufficiency, supporting organic and traditional food practices in education.
Understanding best practices from production to consumption, prioritizing planning and sustainability.	Preserving traditional crops, ensuring food independence, and maintaining community food sharing.
Ensuring access to healthy food through community-based programs and collaboration.	Using Haudenosaunee foodways, engaging community in growing and distributing food
How we feed our families and nations while building connections with the land.	Revitalizing Indigenous methods and teachings around food, fostering self-reliance.
Ensuring continued access to nutritious foods that sustain life and promote health.	Carrying forward traditional food practices, such as corn preparation, for both ceremonial and everyday use.
Having access to basic but sufficient food, even if limited in variety.	Maintaining a spiritual connection to food and ensuring sustainable, culturally rooted food practices.
Having enough food and control over its availability to meet personal and community needs.	Understanding the origins of food and making informed, culturally rooted dietary choices.

Challenges to Food Sovereignty: Acknowledging the Truth

The residential school system fundamentally altered Indigenous people's relationship with land. As Collaborator B notes: "It fundamentally changed Indigenous people's relationship with land and our understanding of our responsibilities

to land." This disconnection transformed what was once a reciprocal, ceremonial relationship into exploitative labour where Indigenous people, she adds, "were not seeing any of the benefits of that hard work."

Residential schools created traumatic associations with food production. Collaborator B observes: "gardening or home gardening kinda dropped off… Is it because they were almost like slave labourers in those gardens that we don't see a lot of gardening happening around here?" The forced labour in residential school gardens created lasting aversions to agricultural practices, as "you get a negative impact from something and you just don't want to do it" (Collaborator B).

Trauma has led to protective behaviours around cultural knowledge, including food practices. Collaborator E points out: "A big thing is access. Um, because of the residential school legacy, so much of our cultural information is guarded and protected." This protection, while necessary, can limit knowledge transfer needed for food sovereignty. Residential schools disrupted family structures and food provision systems across generations. Collaborator E describes how a survivor's approach to family care was reduced to minimal food provision: "They would come once a month, drop off, um, a box of food. And that's what they had to manage for the month, um, at 7 years old." These patterns of food insecurity and an erosion of agency became intergenerational.

Food sovereignty challenges are amplified by "ongoing oppression and lack of access to, um, like food, and good employment," as Collaborator E notes. Historical trauma, combined with contemporary socio-economic barriers, creates complex obstacles to food sovereignty. Bridging traditional and modern food production knowledge is challenging. As Collaborator G asks: "Like why are we not starting another community garden? We got people or somebody building one right that has the seed, has the knowledge, has the gardening techniques; modern and traditional." The loss of traditional knowledge coupled with limited access to resources creates significant barriers. Dependency on external food systems disconnected from Indigenous values presents a fundamental challenge to food sovereignty.

Community collaborators' experiences included the above-mentioned challenges, as well as reflections on what works in their community and how community members and community partners could work together to strengthen local food systems. Insights were framed according to the five Rs of Indigenous research: Respect, Relevance, Reciprocity, Responsibility, and Relationships. Each "R" is detailed below and includes quotes from our collaborators.

Respect: Honour Cultural Practices, Worldviews, and Protocols (respect for people, traditions, culture and land)

Respect encompasses cultural practices, including efforts to maintain continuity amid cultural disruption of Haudenosaunee worldviews, as well as respect for land and food, and protocols. Collaborators discussed how food has stories and their connectedness to those stories. They provided details on how the language and cultural connections to Indigenous food ways were interrupted by colonial policies such as Indian Residential Schools: "Like, I said my great-grandparents were the ones that were directly affected by it. And then, it would be my grandparents didn't really have the knowledge or couldn't speak the language like my great-grandparents could" (Collaborator A). Collaborators further reflect on the colonial disruption and respect for cultural continuity: "I just tried to fight to keep what I had anyway. And what I could absorb" (Collaborator A). A sense of respect emerged from discussions of the interconnectedness of food and land based on which territory it came from. Collaborator G talked about how she likes to learn about food from other territories and is in particular interested in the stories associated with those foods/ingredients. "It's important that not only do we learn how to work with those ingredients from those territories but to remember and honour, and not forget where those came from: the stories that come along with them. Because that to me is just as important as having access to that food."

Respecting cultural practices in relation to agriculture and growing/harvesting food was highlighted by some collaborators as a norm, passed down from generation to generation: "It was normal for us to be working in the garden, to be sent out to the garden to get something for supper" (Collaborator B). Moreover, when it has not been the norm,

there are opportunities to introduce agriculture, growing and harvesting to youth who spend time with Elders in the fields. Collaborator C elaborates on the impact of youth learning alongside Elders:

> When they're able to participate in those things. When there is an openness to going to someone's property and do it respectfully…So, in the past you would see damage done to people's crops that sometimes the kids didn't know what they were damaging. But now, they actually can identify the corn; the white corn. So, I have never experienced in the last few years any damage done by vehicles to the crop.

Respect for seeds and ways in which seeds are shared is an embedded Haudenosaunee practice; Collaborator G spoke about her experience attending a seed exchange and how there should be an intention to plant when being given or taking seeds:

> …even through seed exchanges… they're really thinking about how is this seed being treated? Like, don't just take it to have it. Take with the intention to grow it. And they're changing the way that they do seed exchanges because normally they just..you know, they'll put them out where you have the tray where you can walk around and take what you want. But, it kind of got, I guess, like, frenzied. It seemed like. And that's not respectful. Right?

Our collaborators talked about respect as a Haudenosaunee principle when sharing stories about growing, procuring, sharing and consuming foods from the land. Connectedness to land, learning from Elders, re-learning practices that the impacts of Indian Residential School have disrupted, and deep respect for a commitment to cultural continuity.

Relevance: Aligns with Community Needs

A collaborator spoke about the importance of aligning programming with the Six Nations Community Plan (see Six Nations of the Grand River, 2019), a comprehensive, community-driven roadmap designed to guide the development of the Six Nations of the Grand River toward a sustainable and culturally grounded future. She further described the Community Plan and how it is used to align work with community needs:

> The Community Plan in each of our work plans in the…like through our indicators and through the actions in which we're doing: which Community Plan goal does it align with. Right? So, is it supporting, building the environment, Mother Earth? Is this like a health and wellness [initiative]? So, how does that come into play? And, I think those are conversations that have recently started with the new Community Plan rolled out in the fall of 2019" (Collaborator D).

In several cases, collaborators expressed that being asked to reflect on the intersection of food security, governance, and the legacy of residential schools prompted new insights. For example, Collaborator G noted that "no one has ever asked me about these issues," revealing a broader disconnect between institutional actors and grassroots food leaders in how services are provided to the community. She further reiterated her concerns about programming run by non-Indigenous staff at Six Nations:

> How are we going to teach sustainability when we're teaching it in a western method? Right. So that's the big thing that we need to get outside of western thought. Not just western teaching but western thought. And, I don't want to go to health promotions and have some non-Native chick tell me about Indigenous foods when they probably haven't even eaten them before.

Collaborator D, similarly, expressed that the interview made her realize gaps in strategic alignment for program planning: "In our program planning, where I think we can do better, is by having more voice of community presence." Another grassroots collaborator talked about how there were some challenges to accessing funding from the band

Council for programming: "At the beginning of bringing this to the elected Council's ears…they weren't really seeing the benefits of it [agriculture, growing and harvesting food]. So, we had to go a number of times to discuss it. And probably a number of those times there was more chances of not getting the help that we needed to make this a reality, than there was getting it" (Collaborator C).

Our collaborators who work at the grassroots level feel that sometimes community-funded programming is not relevant to their needs, or that their grassroots initiatives are not funded at the levels requested. Six Nations has a Community Plan as of 2019, and conversations are beginning regarding guiding programming toward a culturally grounded future; however, it was expressed that more work is needed to include community voice.

Reciprocity: Foster Mutual Benefits and Exchange of Knowledge (future generations)

Reciprocity is a multifaceted concept that works in diverse ways according to our collaborators. One key way reciprocity is shown is through the passing of knowledge between generations. One collaborator indicated, "I'm 80 now, and I want to pass on my knowledge to other younger people" (Collaborator C). This quote demonstrates the Elder's commitment to sharing accumulated wisdom, ensuring cultural continuity and intergenerational knowledge exchange. This collaborator also mentioned preserving "white corn and beans, and edible foods that we can grow here on the territory," indicating the transfer of practical food-systems knowledge (Collaborator C).

Collaborators also described how they work collectively with others. One example is institutional reciprocity where those involved in food preparation also have input into the decisions in the Everlasting Tree school philosophy and way of working: "The school made all the employees a part of the food programs…brought into be part of the decision-making around recipes or food programming" (Collaborator B).

Collaborators document a reciprocity that extends to the natural world. One collaborator articulates, "I have a responsibility to the land to go and tap those trees… that relationship between food and nation is reciprocal, and it goes both ways" (Collaborator E). This profound understanding of reciprocity reaches beyond human relationships to include obligations to the natural world.

The reference to one collaborator's mother's basement being "the food bank" shows how reciprocity is built into traditional community support systems. "She knew what was there and she knew how long it was going to last, and she'd provide it" indicates thoughtful management and distribution of resources for community members (Collaborator C).

Reciprocity continues in Six Nations today through bartering and trading as described by our collaborators. "We barter a lot for different things… for time and for supplies" (Collaborator A). They also shared detailed examples of trading homegrown produce (tomatoes, cucumbers, peppers) for turkey and exchanging with a cousin who makes "applesauce and pies," demonstrating a living practice of reciprocity. "So, it's just like a big circle pretty much… It works out pretty good, and everybody eats well" (Collaborator A). This beautifully captures the cyclical, sustainable nature of reciprocal relationships.

Our collaborators have shared that reciprocity is not transactional but represents a holistic worldview that encompasses responsibilities to community members, future generations, and the land itself. It manifests through knowledge sharing, food growing and preparation, collaborative decision-making, and resource distribution.

Responsibility: Ethical Research Practices and Accountability (responsibility to future generations – that is the community perspective)

Responsibility is a foundational principle that connects individual actions to collective well-being within Indigenous food contexts. Rather than treating food as a commodity, these perspectives frame food relationships as sacred obligations that sustain cultural identity, ecological health, and community resilience. This holistic approach to

responsibility offers important insights for developing more just and sustainable food systems that honour the relationships between people, land, and future generations.

One way responsibility was emphasized was related to maintaining Indigenous food sovereignty by ensuring that traditional agricultural knowledge, harvesting practices, and food preparation techniques are passed to younger generations. Collaborator E spoke to this: "As a Mohawk woman, I have a responsibility to be teaching these kids. I have knowledge. I have skill. I have land. I have access." This responsibility is positioned as essential to cultural continuity and food independence. Related to this dimension of responsibility, equipping future generations with practical skills needed for food sovereignty emphasizes autonomy and reduced dependence on external food systems. Collaborator B stressed this idea: "I want to show my grandchildren how to grow food and feel like they are capable of looking after themselves."

The responsibility to maintain traditional food security networks is seen in various local food distribution systems that either are or were part of the Six Nations community and were viewed positively. Collaborator B described how the idea of a local food bank worked:

> Take what you need and don't take more than what you need… Leave some for the next guys to come in and get what they need… That type of understanding is, at the end of the day, whether it's white corn, uh, flint corn, tomatoes, potatoes, whatever it is.

Targeted donations by those involved in food systems reflect responsibility for ensuring food security for vulnerable community members, particularly Elders and school children, demonstrating how responsibility manifests through prioritizing those with specific nutritional needs. Sharing food with community and organizations was described as: "Most of it we donate to the Elders' dinners. And then, we donate some food to the Everlasting Tree School… And then, I usually donate some food to the baby food making person" (Collaborator A).

Collaborators described the importance of responsibility for systemic change in how food knowledge is transmitted institutionally, connecting individual food practices. Collaborators emphasized the responsibility to teach children through active participation, which relates to cultural continuity; they identified a responsibility to maintain cultural practices around food, particularly regarding traditional foods like white corn.

Collaborators noted that food systems work is integral to broader healing, demonstrating a responsibility to address historical trauma by reestablishing Indigenous food relationships. Collaborator E described that "for us it was an opportunity to rebuild nations… which fundamentally is about beginning or continuing the work of undoing that residential school legacy."

We also heard from our collaborators that responsibility for ensuring food-related teaching and community food systems operate through non-hierarchical models contrasts with colonial approaches to food management. Collaborator B indicated that "Some responsibility that we carried to show them a good relationship. Like, what good relationships were about and supposed to be. So like it wasn't, um, authoritarian or authoritative and for sure there was no…like you know, that's another thing is, um, we really strayed from punitive punishment"

Relationship: Build Trust and Meaningful Partnerships (relationships with community and other community members, land, culture)

Relationship underscores the importance of building trust and maintaining meaningful, long-term partnerships, as relationships are central to Indigenous ways; for Haudenosaunee peoples, this extends to relationships with other community members, other nations, land, creatures, culture, and beyond. This is celebrated with Ohen:ton Karihwatehken, the Thanksgiving address, which is integral to social and sacred meetings. "Food in a Haudenosaunee context is wrapped up in everything" (Collaborator H).

Collaborator perspectives reveal how food practices create, sustain, and heal relationships across multiple domains.

This relational understanding suggests that addressing food security requires attention not just to food access, but to the quality and nature of relationships that food practices either strengthen or undermine. The emphasis on trust-building, long-term partnerships, and interconnectedness provides a framework for developing food systems that honour Indigenous ways of knowing while meeting contemporary community needs.

The concept of relationships integrally links food with cultural identity and views food practices as a path toward cultural revitalization, recognizing food as a way to strengthen identity. Collaborators emphasized quality and sharing as central food values.

Relationship with Community and Other Community Members

In contrast to the individual-first orientation of the colonial culture, Indigenous culture centres around community: "need to build quality and sharing into this" discourse on food security (Collaborator H). One respondent exemplified this sharing through her mother supplying the corn she grows and processes ceremonially and communally (Collaborator F). For another, it involved looking out for those with less: "We're providing the…well, just me alone and my daughters, we're providing food for at least five or six families. ……and we donate food to different programs within Six Nations too" (Collaborator A).

Within Six Nations, many community members work collectively to raise food standards and bring families and the community together around food. The Everlasting Tree School Nutrition Program is a model of healthy food and community-building. "….classes eat around table, little rituals. Thanksgiving built into the whole school day….I find that with Haudenosaunee people, like we do things together" (Collaborator H).

Community and organizational relationships are central to food programming. There are some positive examples. "We're [Six Nations Health Services] newly re-engaging with the new Six Nations Food Bank. So, I think how we can expand that partnership is something we're exploring" (Collaborator D). A desire was also expressed for Health Services to work with others as part of a community food strategy:

> I think there could be more effort to extend and expand to work more collaboratively with other community orgs. So, I think that's sort of the initiative with the food bank: like how can we support, engage, involve? But also, how do we do that, um, broader as well. And how that can kind of feed into, you know, gaining feedback and input from community on what it is that we're currently doing? What do we need to improve upon? And, how do we grow that to better adjust to the needs and kind of come to some sort of strategy, um, within the community because I think that's a gap right now (Collaborator D).

When asked in the interview, 'How can Six Nations develop food programs that encompass truth, reconciliation and self-determination of Indigenous peoples?', one response was, "I think we need to do a much better job of partnerships and working together because there's a lot of really amazing programs in the community. Um, and I think we need to create more community space for learning" (Collaborator E).

Several respondents talked about intergenerational knowledge transmission. For example, food security was expressed as "knowledge handed down from mom and grandmother" (Collaborator F). Another shared:

> And being involved in the cooking and I carry that on in my daycare. That if they want to help me with the food, they help me with the food because I cook with them. So, it's all about relationship and developing a good relationship with the food. Yeah, they can be part of it. And, in the summertime, they'll be doing garden work with me or be with me when I do garden work. And they can participate if they want to (Collaborator B).

Relationships with the Land

Several respondents talked about how good stewardship of the land and resources is critical to one's relationship to it: "From a Haudenosaunee perspective, land is what you do with it – grow, trap, fish" (Collaborator H). Collaborator C added: "My role is to help promote best practices in creating edible food that goes into people and animals. And, help to maintain the land so that it stays fertile for the next crop season and for the next generation"

There is also a desire to establish relationships within the community with food providers who share those values:

> I'm just trying to, um, be a part of building that system where I can like, you know, I know you're here. So, I'm going to use your food. And plus, I see, you know, how he raises his animals. I know who he is. So, and he comes from generations of raising animals. There's nothing new for him, and they're all just field animals and field chickens; yard chickens. You know what I mean? They don't have an industrialized version of, you know, the animal, um, upbringing, raising them (Collaborator B).

Relationships with Culture

Food is an extension of culture. This is reflected in the reclamation of traditional food and foodways. They are now teaching language in early childhood education: "Cuz it wasn't just about food. It was about language. It was about, you know, the way we were as teachers towards the children. So, everything was in reverse; countered from what happened to them at the residential schools" (Collaborator B).

Our Findings Led Us to Two Extra Rs: Resiliencies & Reclamation

Resiliencies

Food activity examples shared by collaborators demonstrate resilience and self-determination among community members who maintain traditional knowledge. These initiatives show how food practices support nation-building by reconnecting community members with their cultural responsibilities. As Collaborator E powerfully articulates, food security initiatives represent "an opportunity to rebuild nations" and are fundamentally about "continuing the work of undoing that residential school legacy." This perspective frames food sovereignty not merely as addressing hunger, but as a deliberate act of cultural and political reclamation. By revitalizing traditional food systems, communities are actively reconstructing nationhood that residential schools attempted to dismantle.

The open-access approach to community gardens reflects Indigenous values around food sharing and collective responsibility. Collaborator E describes that "anybody in the community can just come and pick whatever is in the garden," demonstrating how these initiatives embody traditional principles of resource sharing while addressing contemporary food security challenges. This model directly counters the individualistic food systems imposed through colonization by reestablishing communal approaches to food production and distribution. Collaborator G observed that:

> My ma had a garden. You know, it's just something that you did. And a lot of people down here do it. I'm really encouraging it. I see it every spring; almost every house has a little garden, and that's amazing. Right? You're not going to see that often. You're never going to see that anywhere else. And, I'm encouraged by it because, like, you sit there and drive around the Rez and every year those gardens are getting a little bit bigger.

This speaks to the grassroots nature of food sovereignty reclamation and highlights how small, household-level acts of

growing food collectively contribute to broader community resilience. The expanding gardens represent visible symbols of cultural continuity and resistance.

Initiatives help reconnect community members, particularly youth, with their cultural responsibilities toward food and land. The ongoing practice of gardening as 'just something that you did' illustrates how traditional food knowledge continues to be enacted despite attempts to sever these connections. By maintaining these practices and expanding their reach, knowledge holders fulfill their responsibility to ensure these traditions continue for future generations. Through these initiatives, we see how communities are actively transforming historical trauma into opportunities for cultural reclamation and nation-building, with traditional knowledge holders playing crucial roles in this process of collective healing and revitalization.

Reclamation

Reclamation of traditional ways and culture is a movement felt across Indigenous communities. This includes reclaiming traditional foods and foodways and is inherently linked to food sovereignty. Collaborator B describes the change as intentional:

> You know, even though my mother, um, raised us to know who we were, what was our culture and, you know. But, I…you know, food was never framed in that way in my upbringing like it is now. I think it's more important now because of the revitalization efforts that's happening, um, way before the TRC came along. Because, you know, in the civil rights movement time in the 60s and in the 70s, when you know, people started to stand back up and say this is who we are and this is who we're going to be.

The negative impacts of Indian Residential Schools for some meant a shaming of culture and a move away from traditional ways. However, this pattern seems to be changing. It is manifest in the Everlasting Tree School in Six Nations, which emphasizes fresh local and traditional foods:

> You know, um, we're like the residential school in reverse. So, the children were fed so poorly, and I got great descriptions of how they were fed. And now, like again, the polar opposite for which we approach food is, you know, with utmost love. And making sure that you put that energy of love and compassion into the food. And, to make sure it's nutrient dense (Collaborator B).

VII – Discussion

This research affirms that food sovereignty initiatives at Six Nations are deeply intertwined with the community's efforts to heal from the intergenerational trauma of residential schools and broader colonial disruptions. Central to this healing is the recognition that food is not only a physical necessity, but a cultural, spiritual, and relational practice rooted in Haudenosaunee ways of knowing. The findings demonstrate how community-driven food initiatives serve as forms of cultural resurgence, intergenerational knowledge transmission, and political self-determination. The initiatives described by collaborators reframe food security beyond a question of access towards an act of nation-building and reclamation of land, language, and governance.

The research also reveals the powerful role of Haudenosaunee women and youth in revitalizing foodways, emphasizing that cultural education, language immersion, and mentorship are core components of Indigenous food sovereignty. Community-based projects such as Healthy Roots, Revitalizing Our Sustenance, and Everlasting Tree School provide nourishment and spaces for identity formation, skill-building, and healing. These programs illustrate how Haudenosaunee values, such as sharing, relationality, and respect for Creation, are being practiced in everyday acts of planting, cooking, and feeding.

The Agency component of the 5As framework for discussing food security serves as a bridge to food sovereignty or Indigenous self-determination and complements the 5Rs we used to report our findings. By structuring the findings around the 5Rs of Indigenous research (Respect, Relevance, Reciprocity, Responsibility, and Relationships), the project reinforces the importance of relational accountability in research and across food systems (University of British Columbia, 2023). The addition of two more "Rs": Resilience and Reclamation emerged organically from the collaborators' stories and speak to the strength of the community in the face of sustained colonial violence. These expanded principles challenge Western deficit-based frameworks and instead highlight Indigenous brilliance, adaptability, and continuity. Reflecting on the interconnectedness of Indigenous ways of knowing, the 5 Rs framework, as interconnected constructs, reveals the respect for culture that drives reclamation (Saskatchewan NEIHR, 2023; Tsosie et al., 2022; Peterson, 2023).

National tools like the Household Food Security Survey Module (HFSSM)[2] have helped identify income-based food security in Indigenous communities. However, the use of the tool to define food security in Canada has not represented the worldview of Indigenous peoples, where food is a part of relationships beyond the household, and how food procurement extends beyond having enough money to buy food and the importance of food goes beyond nutrition prioritizing sharing, ceremony, and collective responsibility (Shafiee et al., 2023; Skinner et al., 2014). These tools do not capture the relational costs and efforts associated with harvesting, preparing, and sharing traditional foods. By contrast, the First Nations Food, Nutrition and Environment Study (FNFNES) offers a culturally grounded approach, though further innovations are needed. Aligning measurement tools with Indigenous definitions of food security is a necessary step toward justice-oriented food policy and reconciliation (Batal et al., 2021).

Six Nations is proactive in cultural reclamation and food sovereignty; however, it is essential to underscore allies' role in reconciliatory efforts. Reconciliation must also involve settler and institutional accountability for the original harms through acknowledgment, reparations, and meaningful shifts in power and practice. As collaborators noted, the absence of band council engagement or external inquiry into community-driven food knowledge reveals a broader systemic detachment. Centring Indigenous perspectives is not reconciliation, but it is a critical starting point that must be followed by reciprocal, justice-oriented action by those who hold institutional power.

Our research highlights how respectful, community-driven research methods can themselves serve as a form of relational accountability, actively sparking new thought and direction for community-based work. Improving food security hinges on achieving Indigenous Food Sovereignty, the key to long-term conservation and stewardship of the land and its co-management by Indigenous Peoples (Batal et al., 2021). Studies investigating the feasibility of increasing access to traditional foods from an Indigenous perspective are required.

VIII – Conclusion

Food sovereignty at Six Nations is not just about growing food. It is about growing relationships, responsibilities, and rights. It reflects the enduring strength of Haudenosaunee teachings, which emphasize sustainability, care for the land, and collective wellbeing. Community-based food initiatives reveal the transformative potential of culturally grounded programming to address trauma, support healing, and restore balance. In reclaiming foodways, Six Nations is also reclaiming its governance, languages, memories, and future. This research underscores that true reconciliation is rooted in respect for Indigenous knowledge systems and support for Indigenous-led solutions. Food, when grounded in culture, becomes a powerful vehicle for resistance, resurgence, and renewal.

2. See HFSSM https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/household-food-security-survey-module-hfssm-health-nutrition-surveys-health-canada.html

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9. Towards Food Sovereignty for Black Communities in Toronto: Rights, Self-Determination, and the Pursuit of Justice

MAYET ZEGEYE; ANAN LOLOLI; QUEEN ZAWDITU SELASSIE; AND WINSTON HUSBANDS

Abstract

Black communities in Canada experience exceptionally high rates of food insecurity, yet their experiences are often marginalized within mainstream discourses about food policy and research. This chapter argues that food insecurity among Black communities is not merely a problem of insufficient income. Instead, grossly insecure access to food is embedded within a social system that undermines Black people's wellbeing broadly. Systemic anti-Blackness imposes a crisis of wellbeing on Black communities when, for example, Black people and their livelihoods are effectively excluded from land ownership, food production, and decision-making about food access and Canadian food systems. Drawing on the history of the Afri-Can FoodBasket (AFB), the chapter traces the evolution of Black-led responses to food insecurity in Toronto from emergency food access initiatives to a broader movement for food sovereignty. It documents how the AFB's work in promoting access to food through urban agriculture, the food basket program, leadership development, food policy advocacy, and community organizing laid the foundation for the Toronto Black Food Sovereignty Plan and the subsequent establishment of the Black Food Sovereignty Alliance. The chapter positions food sovereignty as both a strategy and a process through which Black communities challenge structural inequities to assert stewardship over food systems for community wellbeing. It concludes that achieving Black food sovereignty requires dismantling systemic barriers, strengthening Black leadership in food governance, supporting Black farmers and food entrepreneurs, and ensuring community leadership of policy development and implementation. The Toronto experience demonstrates how community-led food sovereignty can advance racial justice, self-determination, and more equitable food systems while offering lessons for broader efforts to address structural inequities.

I – Introduction

Black families and households are far more likely than white Canadians, or even people from other ethno-racial groups in Canada, to experience insecure access to food. Latest estimates suggest that almost half of Canada's Black population lives in food-insecure households, the highest rate among households in Canada classified by "racial/cultural identity and Indigenous status" and twice the rate of the white population (PROOF, 2025). Indeed, the problem has persisted for many years and appears to be growing. Yet, among the institutions and individuals aware of this situation and considered experts on food insecurity, there is a notable lack of informed discussion and urgency to address the problem. Most often, Black people's struggles to acquire food of sufficient quantity and quality are discussed as an adjunct of a general problem of food insecurity, and Black communities are typically excluded from discussions about the issue. The people and organizations that have taken up the challenge of responding meaningfully to food insecurity among Black communities are unheralded, unknown, and written out of the narratives about research, policy, and action.

In reality, there is little evidence of a persistent, systemically entrenched problem of food insecurity among Canada's population as a whole. There is, instead, clear evidence of exceptionally insecure access to food among certain structurally disadvantaged populations, which represents a crisis among Black communities in particular. Black

communities, largely on their own and with meagre resources, have begun to champion food sovereignty as a process, strategy and goal to fundamentally overturn the challenge of food access and address their exclusion from any meaningful role in Canadian food systems or discourses about those systems. Black communities have been articulating a movement to exercise stewardship over food systems for their benefit (Garth & Reese, 2020), which also disrupts the power that private and public institutions and allied elites exert over Black livelihoods and wellbeing (Husbands et al., 2026).

In this chapter, we first problematize food insecurity among Black communities in Canada (Section II). Then, drawing on the experience and leadership of the Afri-Can FoodBasket, we discuss the evolution of ideas, community-based initiatives, and institutional structures that have informed the goal and strategy of food sovereignty for Black communities in Toronto (Section III). Finally, in Section IV, we outline strategic considerations to inform how ideas and initiatives related to food sovereignty remain centred among Black communities.

II – Anti-Blackness, Systemic Inequity, and Access to Food

Food Insecurity – A Crisis Imposed on Black Communities

In Canada, standard measures of health and wellbeing indicate that Black communities are severely disadvantaged. The depth and persistence of this disadvantage confirm that it is systemic and institutional, rather than a temporary disruption of otherwise equitable outcomes (Husbands et al., 2026). Credible data clearly illustrate this systemic disadvantage. For example:

- Black people earn significantly lower incomes than their white counterparts with similar levels of education, which does not diminish with age (Banerjee et al., 2024).
- Black people experience exceptionally high rates of poverty, which persists across generations (Banting & Thompson, 2021).
- Black people are more likely to experience insecure housing (Lewis & Moriah, 2024; Lewis et al., 2026).
- Black people account for about three of every ten new HIV diagnoses in Canada, and four of every ten new diagnoses in Ontario, though Black peoples make up just 5% and 7% of respective national and provincial populations; for the past 20 years, the share of diagnoses among white Canadians has been falling steadily, while the burden of the epidemic increases among Black communities. Black women make up almost half of all diagnoses among women in Canada (Ontario HIV and Epidemiologic Surveillance Initiative, 2025; Public Health Agency of Canada, 2025).

Canadian policymakers have been largely impervious to calls for transformative action to strengthen Black people's health and wellbeing. This means that the Canadian state, through its network of institutions, has imposed a crisis in health and wellbeing on Black communities. Why else would insecure access to food among Black individuals and families, which is already excessive compared to other ethno-racial groups (but especially compared to white Canadians), be getting worse? Canadian intellectual elites and decision-makers have normalized hunger among Black communities by citing it in various publications, but without a sense of urgency to address it. At the same time, Black communities and stakeholders have to struggle for attention from the same intellectual leaders and decision-makers who have the capacity to shift the discourse and mobilize resources in favour of transformative action.

So, what does the data about food insecurity say? As Figure 1 demonstrates, the rate of food insecurity among Black people is about twice the rate for white people, and access to food is becoming even more inequitable. Food insecurity is particularly widespread among lone mother families but, here too, the difference between Black and white families is extraordinary: six of every ten Black lone mother families were food insecure in 2021, versus 40% of similar white

families (Uppal, 2023). The same pattern holds among high-income persons: close to one-fifth of high-income Black families were food insecure in 2021, compared to just 5% of non-racialized non-Indigenous families (Uppal, 2023). In 2022, almost half (46%) of Black children lived in food-insecure households, compared to 19% of white children (Li et al., 2023). In Toronto, one in five people who received emergency food assistance from the Daily Bread Food Bank (the largest in Toronto) identified as Black, though Black people make up less than 10% of the city's population (Murphy et al., 2025).

For decades, especially since the expansion of food banks 50 years ago, experts have proposed conventional remedies to address hunger and food insecurity in Canada. These proposals, designed to ensure that food will be accessible and affordable, include: access to stable employment at 'decent' wages (i.e., food insecurity is an income problem); affordable housing; better access to healthcare; and reform of social assistance, employment insurance, and other programs that constitute the so-called social safety net. Over the years, federal and provincial governments, backed and encouraged by the favoured intellectual elite, have implemented a patchwork of policies to address insecure access to food and have proposed more of the same (PROOF, 2022; Saul & Rezaee, 2026; Tarasuk & McIntyre, 2025). However, by refusing to engage the structural disadvantage that anti-Black racism produces, the proposals and reforms have not troubled the entrenched forces and institutions that exacerbate food insecurity among Black communities and generally work against Black people's health and wellbeing.

Figure 1: Share of Black and White Population in Food Insecure Households (Li et al., 2023; PROOF 2024, 2025)

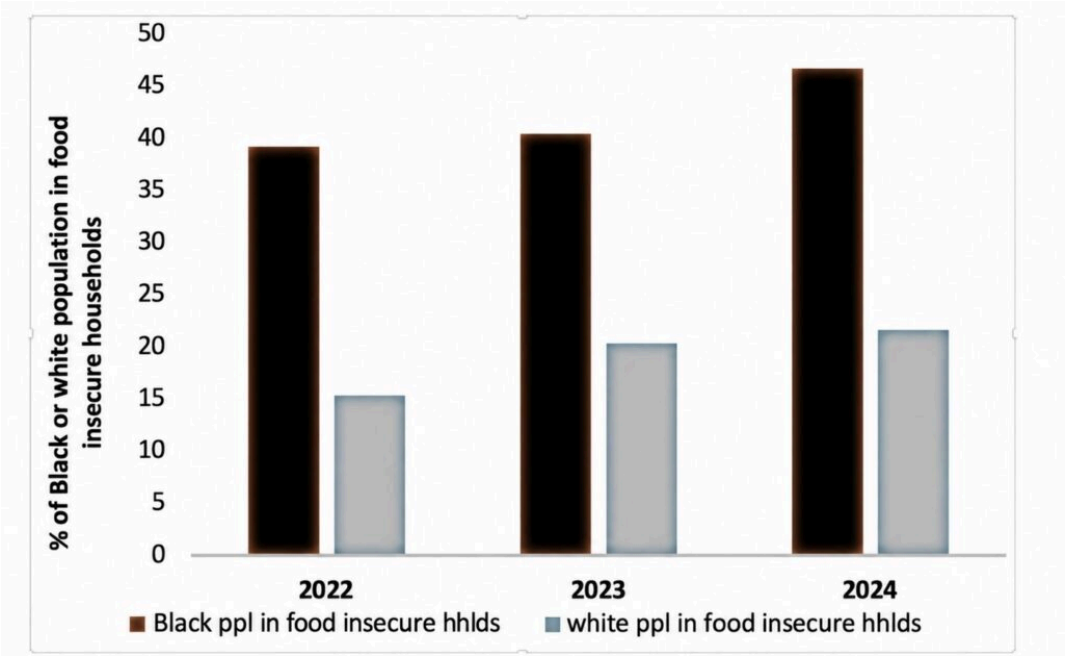

Figure 2. Timeline of selected Black food sovereignty initiatives and events in Canada, 1995–2025.

Anti-Black racism undercuts the popular idea that food insecurity is mainly a symptom of low income, bad social assistance, and other 'variables' that constitute liberal orthodoxy. In fact, "being racialized as Black appears to be an overriding factor shaping vulnerability to food insecurity for the Black population in Canada" (Dhunna & Tarasuk, 2021, p. 1). Therefore, in opposition to orthodox interpretations of food insecurity, we propose that the intersecting inequities undermining Black livelihoods and wellbeing (e.g., food insecurity, unemployment, low income, and so on) emerge from systemic anti-Blackness. How else would food insecurity be significantly more widespread among high-income Black families than their white counterparts? For Black communities, food insecurity and related inequities constitute an enduring system of race-based harm or injustice rather than a side effect of economic trends.

At the end of the day, conventional approaches to managing food insecurity that are not calibrated to address

anti-Blackness will reproduce injustice and inequity. Refusing to seriously acknowledge and address anti-Black racism suggests complicity in reproducing the forces that undermine Black livelihoods.

Black Farmers and Systemic Injustice

Black people have a long history of farming as independent farmers in Canada. Although it is poorly documented, evidence suggests Black farmers were active in Ontario since the early 19th century (Ecological Farmers Association of Ontario [EFAO], 2026). For example, Black veterans of the War of 1812 were granted land in Oro Township (near Barrie); however, in keeping with racist policy and practice, the land was poorly suited for farming. The EFAO (2026) further states that close to 2,000 Black farming families already lived in what was called Queen's Bush, present-day Waterloo and Wellington Counties, in the 1820s.

Despite the long history, Black farmers constituted less than 0.1% of Canadian farm operators in 2021 (The Enough Initiative [TEI], 2025). This extreme underrepresentation indicates systemic exclusion of Black people from owning or operating farms in Canada. This unfortunate circumstance should be understood in the context of "settler-colonial land regimes, anti-Black racism in financial institutions, and the lack of culturally specific agricultural education" (Future Farmers, n.d.; Pitch Better Inc., 2024; TEI, 2025).

Currently, Black farmers and farming organizations are collectively increasing Black representation in farming. Many of them are engaged in urban farming, such as the Toronto Black Farmers and Food Growers Collective, Afri-Can FoodBasket Ujamaa Farm, Ubuntu Community Farm, Agape Farms (Farmgates), Akachi Farms, Deeper Roots Farm, Eager Bee Gardens, and Sarn Farm, among others [see Ontario Farmland Trust (2025) for a list of such farms]. According to a recent report (Pitch Better Inc., 2024), about 58% of Black farmers in Canada are found in Ontario, followed by 11% in Alberta. The same source notes that 54% of Black farmers owned their farms, but their plots were small.

Opportunities for Black farmers to make their produce available to Black communities are limited. Few Black-led or Black-oriented outdoor produce markets exist in Canada. According to its organizers, the Afro-Caribbean Farmers' Market in Toronto's Little Jamaica may be the first market organized by an ethno-cultural group in Toronto. The market began in 2017 in the Jane Street/Wilson Avenue area and relaunched in Little Jamaica in 2021 (Callan, 2022). By then, 18 vendors participated, selling fresh produce and cultural foods grown by local Black farmers, as well as fruits and vegetables imported from the Caribbean (Callan, 2022). Markets matter not only for buying and selling produce, but also as sites of cultural expression and integration into wider society.

Over the generations, many immigrants from Africa and the Caribbean come from cultures and families with a long history of food production, either for trade or household consumption. However, many Black immigrants lack the financial resources or access to capital to acquire land and become farmers. They may also lack the skills and networks needed to enter or succeed in farming in Canada. Prospective Black farmers have been disadvantaged in accessing formal and experiential knowledge about agriculture. Systemic anti-Black racism has historically excluded and marginalized Black communities in the Canadian education system and thus has limited their opportunities for formal education, including in agricultural professions (Pitch Better Inc., 2024). On the other hand, traditional African and diasporic systems of knowledge exchange have been devalued and marginalized. On the whole, prospective Black farmers have always faced interlocking inequities that severely restricted their ability to acquire land and produce food. Ironically, though Black people have been effectively prohibited from owning or operating farms, the Canadian farm economy has thrived through the generational exploitation of Black farmworkers (Allahdua, 2023; Elsharkawy, 2023).

III – Community Responses: From food Security to Food Sovereignty

The Afri-Can FoodBasket (AFB) is a pioneering non-profit organization that has worked on urban agriculture and

food security for Black communities in Toronto since 1995. Because this work has not been extensively documented, this section draws in part on semi-structured interviews with Anan Lololi, a co-founder of the AFB and a pioneer in mobilizing Black communities in response to chronic food insecurity. He co-founded the AFB in 1995 and held a leadership role until 2022. Anan was also one of the first food movement leaders in Toronto to articulate and advocate for food sovereignty as a policy and community-based strategy to address chronic food insecurity among Black communities in Toronto and throughout Canada. Indeed, Toronto's Black Food Sovereignty Plan resulted from Anan's leadership of the AFB and the Black Food Sovereignty Working Group (BFSWG) in organizing a series of community conversations among Black communities in Toronto that raised awareness of food sovereignty, and his advocacy for food sovereignty among the Confronting Anti-Black Racism Unit at the City of Toronto.

The Afri-Can FoodBasket

In the early 1990s, in response to serious food insecurity among Black communities in Toronto, Anan and Anyika Tafari secured provincial funding to launch the AFB. With volunteers from their community, they established the AFB to address food insecurity and the high import costs of fresh, culturally appropriate foods for Black communities in Toronto. It was established as a Community Food Cooperative, a bulk-buying, community-based service to lower costs for members of the Black community. The high cost and uncertain availability of nutritious, culturally appropriate foods were critical challenges to Black communities, as staple foods were imported from the Caribbean, Central and South America, and Africa, which placed a heavy financial burden on low-income Black households. In its early years, the AFB had a single staff member (Anan) responsible for administration, purchasing, distribution, and warehousing. However, the emerging community-based agency benefited from a robust network of volunteers, including the board of directors, drivers, and packers, among other roles. Since its establishment, the AFB has functioned as a non-profit organization while also operating in line with cooperative principles. Thus, members purchased shares through monthly basket subscriptions, originally choosing between a small basket at $15 or a large basket at $25, with some members paying for annual subscriptions. Despite the commitment of the founders and volunteers, funding was a major challenge during the AFB's formative years. The organization faced a formidable challenge in attracting funding from private institutions and governments that doubted the viability of Black-led non-profit organizations at the time. At times in the early years, the organization operated solely through volunteers.

Evolution and Expansion of the AFB

At its inception, the AFB was most likely the first Black food systems organization in Toronto. Before the AFB, responses to Black food insecurity took the form of general food assistance programs that emerged whenever food insecurity affected communities, such as food banks, community kitchens, and food buying clubs that emerged in the 1980s. Organizations like FoodShare and Daily Bread Food Bank (along with its network of local organization members) worked in this model. This approach was (and remains) problematic for several reasons. Food banks and related agencies represent a charitable response to a systemic and structural problem. They lump together all food-insecure communities as though food insecurity across diverse communities is amenable to a single response. Food charities, which continue to dominate the response to hunger and food insecurity, generally are disengaged from the systemic and institutional process of anti-Blackness. Moreover, affected communities generally have no leadership or decision-making role in the networks or organizations that sustain the food charity response (Regnier-Davies & Edge, 2025). Food charities may also be incapable of the culturally nuanced response that Black communities deserve. The AFB was, therefore, intended to address food insecurity in the context of the systemic and institutional forces that precipitate food insecurity among Black communities.

Initially, discussions about community food security at the Center for Studies in Food Security (CSFS) at Toronto Metropolitan University in the late 1990s triggered the AFB's evolution and diversification beyond its original limited mandate (see Figure 2). As a concept, community food security promoted access to culturally appropriate, healthy, and nutritious food as a right, and emphasized food policy and community-engaged responses (e.g., community gardening, farming, nutrition programs, community kitchens, and cooking programs). This suite of ideas provided important lessons for the AFB to diversify its activities and programs.

Figure 2: Afri-Can FoodBasket Timeline

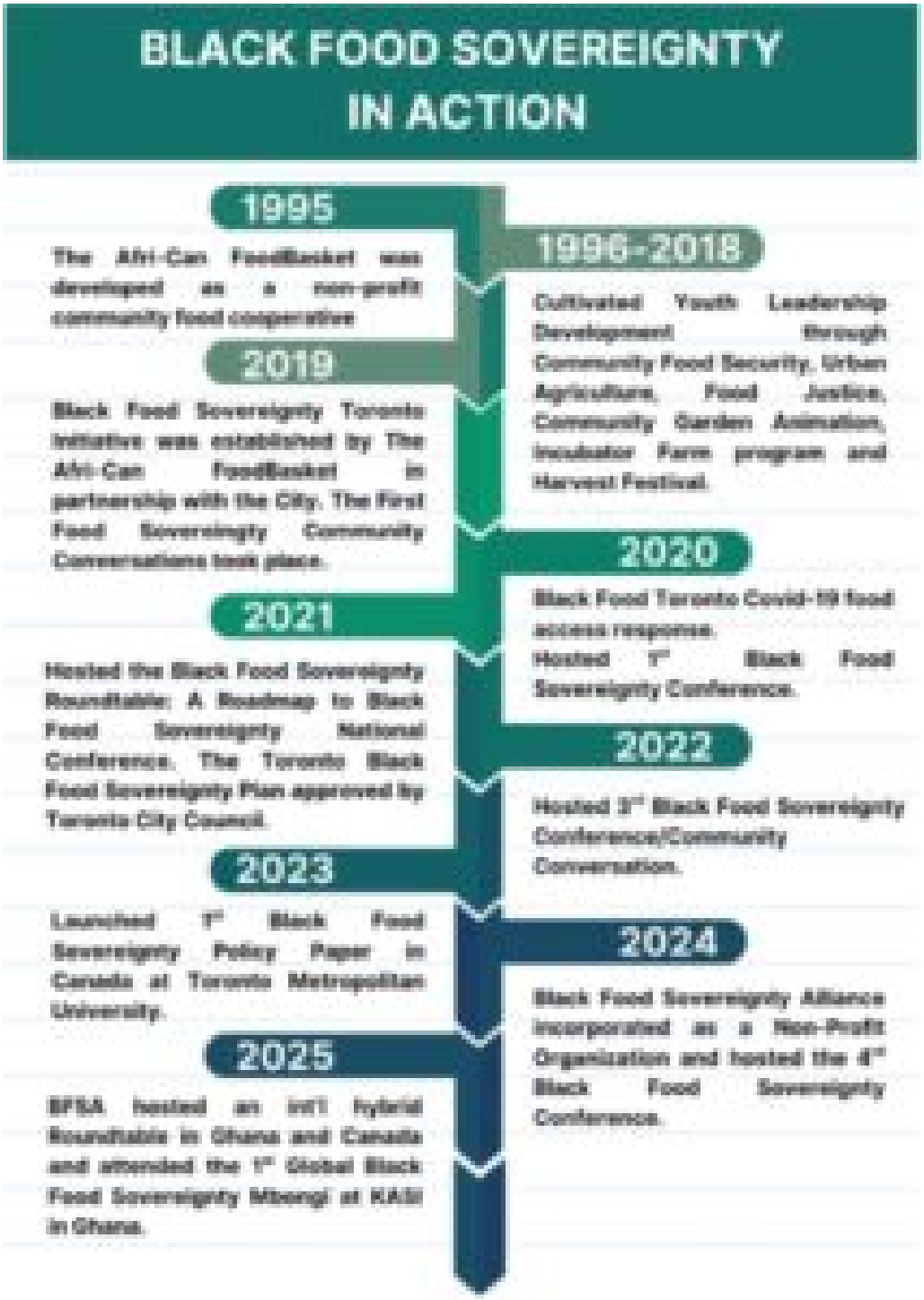

Figure 2. Timeline of selected Black food sovereignty initiatives and events in Canada, 1995–2025.

Apart from the spark provided by discussions in the CSFS, the diversification of the AFB's interests and programs was also dictated by the breadth and scale of food insecurity among Black people in Toronto (as discussed earlier). This meant that the organization had to stretch its limited resources to expand and diversify across different activities, including backyard and school garden initiatives, urban farming, food policy advocacy, food justice, cooking, and youth and adult leadership development. The intention was that Black communities needed representation among decision-makers at all levels in conversations about food security. This context also shaped the AFB's leadership in articulating and advocating for food sovereignty.

Subsequently, the AFB expanded its focus to include urban agriculture and community gardens, under the Afuye Food Program (named after the Akan word for gardening or farming), which engaged young people in urban agriculture. The name was intended to mark the AFB as African-centred, provide a historical perspective for people of African descent, and be rooted in broad Pan-Africanism. While gaining experience with the Afuye program, the organization launched its inaugural strategic development initiative – a training program called Roots to Fruits. This program brought together key people who would shape the organization's course for many years. As a team demonstrating complementary expertise and experience, they established the four pillars of the AFB: food policy, food systems and urban agriculture, African-centred programming, and environmental sustainability. These remained the AFB's main pillars for the next three decades.

In implementing the Roots to Fruits program, the AFB expanded into urban farming, beginning with the Ujamaa Learning Farm, where it trained youth and adults in farming and leadership. The AFB made backyard, schoolyard, churchyard and urban farming its main activities. The Ujamaa Farm farmers' collective, started around 2000, has run to the present as an incubator farm program engaging prospective Black urban farmers. Several people who graduated from the program are still farming; some have purchased their own farms, while others work with other farmers.

Making Food Sovereignty a Community Priority

We understand food sovereignty as a process and strategy through which communities exercise stewardship of the food system in their own interests and to meet their needs for access to food of appropriate quality and quantity, in socially and ecologically sustainable ways (Elsharkawy, 2023; Food Secure Canada, n.d.; La Via Campesina, 2008; Nyéléni International Steering Committee, 2007).

Communities that pursue food sovereignty are concerned with understanding how they are disadvantaged by the food system, and taking steps to ensure that the food system works in their interest (i.e., exercising stewardship over the food system to meet their needs) (Elsharkawy, 2023, p. 4).

Food sovereignty among Black communities establishes Black people's leadership in the processes and strategies for achieving and managing food sovereignty.

The food cultures of Africa and African diasporas in the Americas and elsewhere have centuries of knowledge and practice embedded within them, but in North America they are systematically marginalized in the dominant capitalist food system. In this context, Black food sovereignty is to some extent a recuperation of African foodways that predate colonization. This perspective suggests that food sovereignty is not a new idea to African and African-descended peoples. So, the AFB's transition from an exclusive focus on food security to institutionalizing food sovereignty was intentional.

Though the AFB took up the challenge of exploring food sovereignty after 2010, the organization may have been moving in that direction since the late 1990s. The organization intentionally designed and promoted its programs by and for people of African descent. Therefore, the principle of food sovereignty, which places responsibility as well as authority on communities to define and ensure their own food security, became the central framework for the AFB to engage people of African descent about collective food security.

In 2019, FoodShare, in partnership with PROOF, released a fact sheet that publicized a glaring inequity in access to food among Black people, especially Black children (FoodShare, 2019). This marked a turning point for the AFB,

strengthening its focus on food sovereignty as an urgent community priority under Black leadership. The report and sharper focus on food sovereignty also created an opportunity for the AFB to engage the City of Toronto in conversations about the possibilities for a food sovereignty plan for Black communities. The City of Toronto had recently established the Confronting Anti-Black Racism (CABR) Unit and issued an Action Plan to confront anti-Black racism (City of Toronto, 2017). It was a five-year plan designed to leverage the talents, knowledge, experiences and capacities of Black people and Black organizations as partners in strengthening the quality of life of Black Torontonians. The action plan included 22 recommendations and 80 actions across five themes: children and youth development, health and community services, job opportunities and income support, policing and the justice system, and community engagement and Black leadership.

In 2019, the AFB was invited to meet with CABR to explore how it could help implement the Action Plan. Attention was drawn to Recommendation 8 in the Action Plan, which called for improved food access for low-income Black Torontonians and for anti-Black racism analysis to improve the programming of the Toronto food strategy and agricultural program. That particular recommendation further encouraged the AFB to sharpen its advocacy on food sovereignty, which the AFB had already been exploring as the viable strategy for substantively addressing the crisis of food insecurity among Black communities. The AFB proposed holding consultations with Black communities to discuss the food insecurity crisis and the possibilities for food sovereignty as a community-driven policy response, and the City agreed. Subsequently, consultations were held in the east and west ends of Toronto in 2019, but others were suspended because of the COVID-19 outbreak. Nonetheless, the AFB delivered a report to the City on its conversations with Black stakeholders and community members. The BFSWG emerged from that community consultation process and brought together stakeholders from different but complementary areas of interest – food policy, farming, gardening, cooking, nutrition, and academia – to engage Black communities, CABR and policymakers about the potential for food sovereignty to address chronically insecure access to food. Overall, the AFB played a critical leadership role in engaging Black communities about the meaning and possibilities of food sovereignty, and in harnessing community interest and enthusiasm to advocate for and lobby for the City of Toronto's Black Food Sovereignty Plan.

The City of Toronto officially adopted the Black Food Sovereignty Plan in 2021 and launched it as a City initiative in 2022 (City of Toronto, 2021a, 2021b, 2023). A year later (in November 2023), the BFSWG collaborated with the Faculty of Arts and the Centre for Studies in Food Security at Toronto Metropolitan University to introduce Black and academic communities to the BFSWG's recently published policy-oriented paper on food sovereignty (Elsharkawy, 2023) and, by extension, the Black Food Sovereignty Plan.

The Plan is billed as a "community-led Confronting Anti-Black Racism Unit Plan to address chronic food insecurity, anti-Black racism and structural inequity in Toronto's local food system to create immediate and long-term change to improve the health, wellbeing and capacity of Black Torontonians" (City of Toronto, 2021b, p. 15). The Plan has also been described in previous CABR communications as "community-led, municipally supported."

In 2024, the BFSWG transitioned to the Black Food Sovereignty Alliance (BFSA) to promote food sovereignty in dialogue with, but independent from, the City's Confronting Anti-Black Racism Unit. The BFSA is envisioned as an independent community voice, working on behalf of community interests collectively, to advocate for the Plan's implementation, and food sovereignty more generally, in ways that benefit Black communities, and enable continued and substantive Black community involvement in the Plan and related initiatives (Black Food Sovereignty Alliance, 2024). In short, the BFSA will help ensure the Plan does not become another government program severed from the communities that advocated for it and whose interests are supposed to be paramount.

IV – What Difference will Food Sovereignty Make for Black Communities

As demonstrated above, Black families, households, and individuals are way more likely than their white counterparts to experience insecure access to food – food insecurity is a chronic problem for Black communities. The standard toolbox of policy options to reduce food insecurity may help Black people to some extent, but will not close the glaring inequity

that separates Black and white families. In other words, though the standard policies to improve incomes, jobs and social assistance may bring some relief, these will be insufficient for eliminating the intersecting inequities that undermine Black livelihoods and well-being. Anti-Blackness is rooted in the social structure that was engineered to reproduce it. Therefore, food sovereignty should be understood as a strategy and goal for Black communities to disrupt anti-Black racism and incubate a food system that eliminates persistently insecure access to food. We are suggesting that a process for pursuing and institutionalizing food sovereignty for Black communities must be part of a wider strategy to disrupt anti-Blackness and cut through the intersecting inequities that have always undermined Black life in Canada.

Food sovereignty will probably remain merely aspirational unless Black communities design and implement a progressive agenda to understand and confront the societal forces that thwart Black aspirations. While food constitutes an urgent and important dimension of our struggle for Black wellbeing, our future is not reducible to conventional arguments about access to food. Black communities should be wary of dissipating our enthusiasm and energy over issues that others prioritize while they sidestep the race-based harm that arises from systemic and institutional anti-Blackness.

The Canadian social structure privileges whiteness and undervalues Blackness. The legion of conventional disparities suggests that, in relative terms, whiteness attracts a reward while Blackness incurs a cost. Food sovereignty encapsulates this basic understanding – that poor access to food is not merely an income problem or an unemployment problem, because Black people already have chronically low income and high unemployment compared to white Canadians. Therefore, food sovereignty entails a reordering of the food system to meet Black people's needs. How far food sovereignty can deliver on its promise depends on conceptual and strategic clarity about its potential and the challenges it entails (Elsharkawy, 2023).

Several strategic considerations may be necessary to secure the foundations of food sovereignty for Black communities. First, leading stakeholders and scholars must provide intellectual support by critically reviewing the concept and process. This will clarify understanding and inform the process as it unfolds. Second, Black communities are primary constituents in achieving food sovereignty. A process that is captured by Black elites or allies to advance their own narrow interests will fail. No substitute exists for intentionally engaging communities to drive food sovereignty for the collective good. Third, Black stakeholders must insist on a leadership role in all areas of public policy that affect Black people's access to food and their investment in food sovereignty. Fourth, Black scholars must be mobilized to develop, test, implement and monitor interventions that will inform and support the movement toward food sovereignty.

V – Conclusion – A Renewed Beginning

"Achieving Black Food Sovereignty is contingent on dismantling systemic barriers" that undermine Black livelihoods and wellbeing (Elsharkawy, 2023, p. 23). But achieving food sovereignty and dismantling systemic barriers to Black wellbeing require inspired community-oriented leadership from Black communities to engage their constituents and constructively challenge the public and private institutions that mobilize their authority and resources to regulate health and wellbeing in Canada.

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10. Evolving Food System Challenges and Opportunities for Supporting Immigrant Wellbeing and Inclusion

JENELLE REGNIER-DAVIES AND SARA EDGE

Abstract

Immigrants experience disproportionately high rates of food insecurity in Canada, yet discussions of immigrant food security have traditionally emphasized vulnerability, settlement challenges, and barriers to food access. This chapter argues for a broader perspective that recognizes the assets, agency, and innovations immigrant communities contribute to local food systems. Drawing on contemporary literature and two community-based case studies from Toronto's inner suburbs—the Rexdale Community Hub and the Scarborough Food Security Initiative—the chapter examines how immigrant-serving organizations are reshaping food system governance through culturally responsive, community-led initiatives. It explores how community grocery markets, social enterprise, food entrepreneurship, community gardens, and participatory governance strengthen access to culturally appropriate food while fostering dignity, belonging, and food agency. The chapter contends that these organizations extend beyond emergency food provision by creating opportunities for immigrant leadership, economic participation, and greater self-determination within local food systems. At the same time, it emphasizes that community innovation cannot substitute for broader structural reforms addressing income insecurity, affordable housing, employment precarity, and inequitable urban planning. Rather, community-led initiatives and social policy reform should be understood as complementary strategies for advancing immigrant wellbeing. By shifting attention from deficits to capacities, the chapter highlights the importance of immigrant foodways, community knowledge, and grassroots governance in building more inclusive, equitable, and resilient food systems, while identifying priorities for future research, policy, and practice.

I – Introduction

Immigrant food insecurity has interested researchers for decades, spanning disciplines such as sociology, anthropology, and nutrition, as well as geography and urban planning. Foundational literature has helped establish our understanding of the multiple barriers to food access that migrant populations face (Sanou et al., 2014), emphasizing the factors and inequities that contribute to vulnerability to food insecurity and the importance of cultural capital for food security (Vahabi & Damba, 2013). Today in Canada, our food systems reflect systemic inequities experienced by Indigenous, racialized and immigrant communities within a settler colonial society (Elsharkawy, 2024; Regnier-Davies et al., 2022). Disparities in wealth, land ownership, access to capital, and decision-making power over public and commercial spaces contribute to these groups' marginalization (Agyeman, 2020). In Canada, over 10 million people experience inadequate access to sufficient safe, nutritious food (~25%), with the highest rates seen among Black (46.7%), Latin American (37.4%), Filipino (37.2%), Arab (31.6%), South-East Asian (27%), and South Asian Canadians (27.1%), who are among the most food insecure (PROOF, 2025).

Increasingly, food security scholars are looking beyond the 'vulnerability lens' to understand immigrant food assets, food access pathways or 'foodways,' and how immigrant communities exercise agency and self-determination over their food environments (Bruckert, 2023; Hammelman, 2018; Khojasteh & Raja, 2017). This shift is partly in response to the

recognition that relying on charitable food programs as a form of support for food-insecure immigrant communities is problematic, as they can reinforce relationships of dependency and subjugation while also inadequately responding to the food needs and preferences of immigrant populations given the limitations of food donation streams (Sanou et al., 2014; Onyango et al., 2025). This and other factors have led many to contend that we need to move beyond reactionary and inadequate "emergency responses" toward broader social policy change, such as affordable housing, a living wage, universal income, etc. (PROOF, 2025).

Our Chapter builds on foundational literatures and highlights the need to better recognize and invest in immigrant food system assets, knowledge, and innovation at the community scale, while continuing to advocate for broader social policy reform. We argue that we need to highlight the evolving and underacknowledged role of immigrant populations in food systems governance and emphasize the growing significance of community-based organizations. Many of these organizations are led by and support immigrant communities, and some are not traditionally food-focused in their mandates (e.g., settlement agencies, community health centres, cultural clubs, religious organizations, etc.). We contend that such community-based organizations are often more closely connected with immigrant populations (Charles-Rodriguez et al., 2023; Roth et al., 2018) than many 'alternative food initiatives' that have been critiqued in the past for being (unintentionally) exclusionary (Elliott et al., 2023).

This Chapter first reflects on the barriers to food security that immigrant communities often face in the Canadian context, highlighting the specific challenges of Toronto's inner suburban geographies. Fluidly defined, Toronto's "inner suburbs" refers to areas within the city boundaries that were developed as post-war suburbs but are now considered older, more established, and more densely populated than the outer suburbs (White, 2018). Using the "case studies" of Rexdale Community Hub and the Scarborough Food Security Initiative, our chapter points to the capacity, knowledge and experience that community-level actors hold, as well as the strategies and innovations that help to strengthen access to culturally acceptable food and build food agency for immigrants. The chapter concludes by emphasizing the opportunities immigrant-led community-based organizations offer to support immigrant foodways, well-being, inclusion, and food security, while highlighting future areas for research and examination.

Throughout this Chapter, we use the terms newcomer, migrant, immigrant and racialized immigrant. These terms include people moving from another country, those born outside Canada, temporary residents (such as students or foreign workers), and permanent residents who live and work in Canada. While grappling with this terminology, we recognize the debates around the appropriate wording to describe groups that have experienced historical oppression or continue to face systemic inequalities in Canada. This country's population is highly diverse, with many individuals identifying with multiple ethnic origins. We move away from language such as visible minority, as it focuses on skin colour and imposes a monolithic understanding of communities with vastly different lived experiences (Dean & Edge, 2024). The term minority is also inappropriate as it implies numerical inferiority, though it may also be used to characterize a group that lacks power within a more hegemonic regime (Dean & Edge, 2024). In recent years, the term racialized has gained traction in Canada as a more appropriate term, as it highlights that race is not a biological reality, but a social construct shaped by historical and societal forces (Nicol & Osazuwa, 2022; Dean & Edge, 2024). In some cases, we may also refer to ethnic food retail. In this context, ethnicity refers to distinctive cultural, religious or linguistic characteristics—and though many immigrants could be identified as ethnic minorities, we recognize that not all ethnic minorities are immigrants.

II – Inequitable Barriers to Food Security and Food Access Facing Migrant Populations

There are over eight million migrants in Canada (Statistics Canada, 2022), representing 23 percent of the total population (Statistics Canada, 2026). Between January 2016 and May 2021, the country welcomed over 1.3 million immigrants with permanent resident status—marking a historic high for Canada (Statistics Canada, 2022). However, public backlash and pressure to reduce immigration have led to a 2025 federal budget reduction in the target for new permanent residents by 21 percent, with further decreases planned into 2027, as well as stricter rules for temporary workers and

international students (Martin, 2025). All levels of government have been engaged in 'welcoming communities' initiatives to attract migrants to grow their economies and fill labour shortages. However, this economic dependency on migrants is unfolding at the same time that xenophobia and anti-immigration sentiments are also rising, adding to pre-existing structural inequalities that challenge racialized immigrants' ability to secure a good quality of life in Canada.

Researchers who have studied the determinants of immigrant health more broadly point to a range of factors that likewise shape immigrant food access, which can largely be broken down into economic, environmental, and socio-cultural rationales (Edge et al., 2026). Drawing on the discourse of the 'healthy immigrant effect,' research has historically shown that immigrants are generally healthier than Canadian-born citizens upon arrival. However, over time and amid the stresses of migration (such as challenges in acquiring adequate housing, harsh working conditions, and dietary changes), migrants generally experience a decline in physical and mental health (Fennelly et al., 2007; Vang et al., 2017). Although the immigrant experience is diverse and depends on a range of physical, social, economic, and environmental factors, immigrants in Canada face myriad disparities compared with broader populations (Ramsahoi et al., 2022).

According to the 2021 Canadian Income Survey, one in four (26%) of families (of which the major income earner is a recent immigrant) reported being food insecure (Statistics Canada, 2023). Economic studies of immigrant wellbeing find that immigrants are overrepresented among those working precarious jobs, experiencing labour exploitation, and facing compounded challenges in achieving socio-economic stability in the Canadian context (Dean et al., 2026; Gottfried et al., 2016). Challenges such as limited access to credit, language barriers, inadequate employment opportunities, or restrictive job or internship eligibility requirements mean that even highly educated individuals face barriers to employment in Canada (Berggreen-Clausen et al., 2022; Patterson & Edge, 2025). Compared with Canadian-born residents, immigrants face greater disadvantage, which directly affects their ability to access secure housing, adequate healthcare, and food.

The cost of living in Canada directly affects immigrant households' ability to manage income and maintain food security. Given Canada's growing affordable housing crisis, immigrant families increasingly struggle to secure adequate housing that meets the needs of their (often larger, intergenerational) households. Further, immigrant renters and migrant workers are more likely to live in overcrowded housing conditions that lack privacy, spacing, adequate sanitation, and water (Caxaj et al, 2023; Edge et al, 2020). For those with limited income, it can be especially challenging to secure nutrient-dense foods (like fruits, vegetables, dairy, fish, and meat), culturally specific products (such as Halal or Kosher items), or imported ingredients (Berggreen-Clausen et al., 2022; Vahabi & Damba, 2013). Food costs, particularly imports, also fluctuate due to war, changing tariff agreements, high oil prices, and the climate crisis (AFI, 2025).

Beyond affordability and the widely acknowledged economic barriers facing immigrant populations, researchers, particularly geographers and urban planners, have turned their attention towards understanding how immigrant food access is shaped by factors beyond household income, including the built environment and existing infrastructure (Dickau et al., 2021), and/or socio-cultural factors (e.g. social networks, ethno-cultural practices and resources) (Bessey et al., 2025; Hammelman, 2018). The physical environment can undermine food access, especially in geographic regions developed to promote car dependency and/or underserved by public transit (Edge et al., 2024). For example, the vast landscapes of Toronto's inner suburban regions include an abundant and eclectic mix of ethnic food retail spaces, restaurants, and fast-food joints, along with some conventional low-cost food retail spaces that minimally shape their offerings to the preferences or needs of local communities. However, despite the plethora of food access points, the sprawling and congested geographical region, underserved by public transit and unsuitable for walking, makes the daily task of sourcing food incredibly stressful for residents, especially for those who cannot access a car (Mendly-Zambo et al., 2021; Jacobs, 2017).

Others argue that living in a neighbourhood with high immigrant density can protect newcomers from dietary changes associated with acculturation, highlighting the importance of sociocultural networks and a sociological perspective (Zhuang & Chen, 2016). Bruckert (2023) illustrates that the settlement patterns of immigrant communities influence the spatial and social configuration of food environments and food systems, while others suggest that immigrant communities reconfigure and reinvent food systems and access through ethnic food entrepreneurship and place-based cultural gatherings in food spaces (Zhuang, 2019; Zhuang et al., 2017; Edge et al, 2026). Within the inner suburbs of the GTA, ethnic enclaves can provide access to culturally significant food and cultural representation that

aligns with immigrants' practices and connect migrants to businesses and services in the language of the community (Edge et al., 2026; Zhuang, 2021; Qadeer et al., 2010). In contrast, outlying and inner suburban communities remain underprepared in terms of programs, policies, and infrastructure needed to adequately support the health of incoming immigrant populations, which can include a lack of available and adequate housing, access to health care, jobs, transit, green space, cultural programming, etc.) (Dean et al., 2026; Edge et al., 2024; Patel et al., 2019).

Food choices, food sources, and preparation are important aspects of food security for immigrants and are tightly intertwined with migrants' identities, kinship, social networks, and cultural practices (Edge et al., 2026; Hammelman, 2018). As Seko and Brady detail in Chapter 3 of this volume, cultural food is particularly important to identity formation and a sense of belonging, and is linked to notions of power, racialization, othering, etc. However, Seko and Brady (2026) also caution that we should not assume cultural food is limited to the immigrant 'other,' as the changing landscape of immigration, intergenerational knowledge sharing, and adaptation to a new society continuously shape cultural food preferences and traditions. Nonetheless, other works unpack the relevance of cultural food to immigrant populations, including challenges accessing it (Seko et al., 2021; Moffat et al., 2017). Others point to the myriad ways immigrants employ their creative agency to construct new forms of immigrant-specific cultural capital across food-related social, physical, and increasingly digital infrastructure and broader food systems (see Edge et al., 2026; Hammelman, 2018; Erel, 2010; Koc & Welsh, 2002). The remainder of this chapter contributes to such work and calls for more attention to immigrants' agency in interconnected food provisioning strategies that span neighbourhood geographies and social networks.

Immigrant Food Insecurity in Toronto's Inner Suburbs

With demographic changes, the City of Toronto has become increasingly segregated: with mixed-income neighbourhoods becoming more scarce (particularly in the gentrifying core), while lower-income, visible minority and immigrant populations are being pushed to the city's 'inner suburbs', where there is less access to services, transit and grocery stores (Edge et al., 2020; Zhuang et al., 2021). Through the 1960s and 70s, the inner suburban regions of what is now described as the Greater Toronto Area were shaped by a surge in high-rise and public housing development built to serve low-income families (Ghosh, 2014). These areas, including the boroughs of Etobicoke, York, East York, and Scarborough, feature pre-war housing alongside post-war high-rise neighbourhoods, characterized by a mix of older, established ethnic enclaves and newer multi-ethnic communities (Zucchi, 2007). Over the years, many immigrant families have gravitated to these areas because of relatively low-cost housing, larger apartments that are somewhat conducive to intergenerational living, and proximity to ethnic institutions and retail (Ghosh, 2014; Zhuang et al., 2021).

Toronto's inner suburbs typically exhibit concentrations of poverty, ageing infrastructure, racial and spatial segregation and insufficient access to public services (Keil, 2017), all of which can compound food insecurity. These areas include a concentration of neighbourhoods referred to as "Neighbourhood Improvement Areas" (NIAs), which the municipality designated for their prevalence of poverty, environmental and infrastructural concerns, and need for re-investment (City of Toronto, 2014). Community-based organizations in these regions work to strengthen and integrate health, social, legal, immigration, employment, and cultural services. In recent years, out of necessity, many local non-profits, community-based, and grassroots organizations supporting migrant populations (e.g. settlement agencies, community hubs, faith organizations, health centres, etc.) have become increasingly focused on food security, developing a range of programming from emergency food hampers and food banks to social supermarkets and other community-led food initiatives.

III – Understanding Regional Immigrant Food Assets and Foodways

Despite the inner suburbs being a site of struggle and inequity, we argue that these spaces are also sites of cultural vibrancy. Across Toronto's inner suburbs, many immigrant-led initiatives have been developed to build social inclusion and address social issues. Inner suburban boroughs, like Rexdale and Scarborough, have been shaped by a plethora of immigrant-owned businesses and food initiatives and are becoming increasingly known for their dynamic cultural food scenes and immigrant 'foodways' (Bégin & Sharma, 2018). A 'foodway' encompasses traditional and evolving activities, attitudes, beliefs and behaviours associated with food in one's daily life (Koc & Welsh, 2002). Immigrant 'foodways' include the customs of food production, preservation, preparation, presentation, gathering, and marketing (both buying and selling) of local immigrant communities (Darnton, 2012). The prominence of an immigrant community's 'foodways' signals the degree to which migrant populations' food needs are being met within a given geography (Cachelin et al., 2019; Qadeer et al., 2010). We provide two examples of community-driven organizations, including the Rexdale Community Hub (RCH) and the Scarborough Food Security Initiative (SFSI), that lead food systems responses in inner-suburban regions marked by a diverse array of international cultures, flavours, needs, and traditions.

Rexdale Community Hub and Community Grocery Market

Rexdale is located in the northwest region of the Greater Toronto Area and is home to a high concentration of immigrant households— 50% of the population in the area are immigrants. Of these, 52% are first-generation immigrants, including people primarily from Africa, Asia, South Asia, the Caribbean, and the Americas (City of Toronto, 2018). Founded in 2009, the Rexdale Community Hub (RCH) was established to bring together social services, healthcare, recreational facilities, and government support in a single, accessible location for residents of North Etobicoke (Aguilar, 2024). Designed as a "one-stop shop" for a historically underserved and predominantly immigrant community, the Hub offers a wide range of services, including after-school programs, social clubs, settlement support, employment assistance, and spaces for recreation and social connection (Aguilar, 2024). A board of directors governs RCH and operates through a collaborative model involving six independently managed non-profit organizations that deliver various programs (RCH, 2023). While its structure may seem hierarchical, the Hub's leadership and staff are deeply rooted in the community. Much of the staff team lives and works in the community they serve, and they actively engage residents and stakeholders, recognizing them as essential partners and experts in shaping programs and informing decisions.

Amid the disruptions of the COVID-19 pandemic, the RCH, like many social sector organizations, mobilized a rapid crisis response to address the growing issue of food insecurity. Alongside resident volunteers, RCH led the coordination of an intersectoral emergency food initiative serving the Rexdale community, bringing together resident leaders, small ethnocultural grocers and restaurants to source and distribute food hampers and prepared meals. The initiative prioritized support for newcomer residents hit hardest by the crisis, with a distribution and delivery system designed to reach those facing mobility barriers. A distinctive and foundational aspect of the program was its commitment to sourcing and distributing food community members needed and preferred—offering culturally preferred items such as Halal or Kosher products and "equator foods," such as tropical fruits and vegetables familiar to many immigrant communities. The organization surveyed the hundreds of households it supports to avoid assumptions about the age and cultural appropriateness of the food procured. Residents were at the heart of the operation, playing a vital role in addressing the urgent and evolving needs of their neighbours.

Food insecurity in Rexdale was a pressing concern long before the COVID-19 pandemic. For years, community members had discussed alternative, financially sustainable, and more equitable food system solutions. After the pandemic's early waves, the RCH revisited long-standing discussions about a longer-term food access model with residents, service partners, municipal health promoters, and community-engaged researchers (the authors of this chapter). While emergency food relief remained essential for many, it was clear that such short-term responses could

not address the community's experience of food insecurity. RCH staff and community leaders aimed to create a more empowering and dignified approach that would move beyond reliance on temporary funding and crisis response and become a lasting, sustainable part of the Hub's operations, based on the community's needs and preferences.

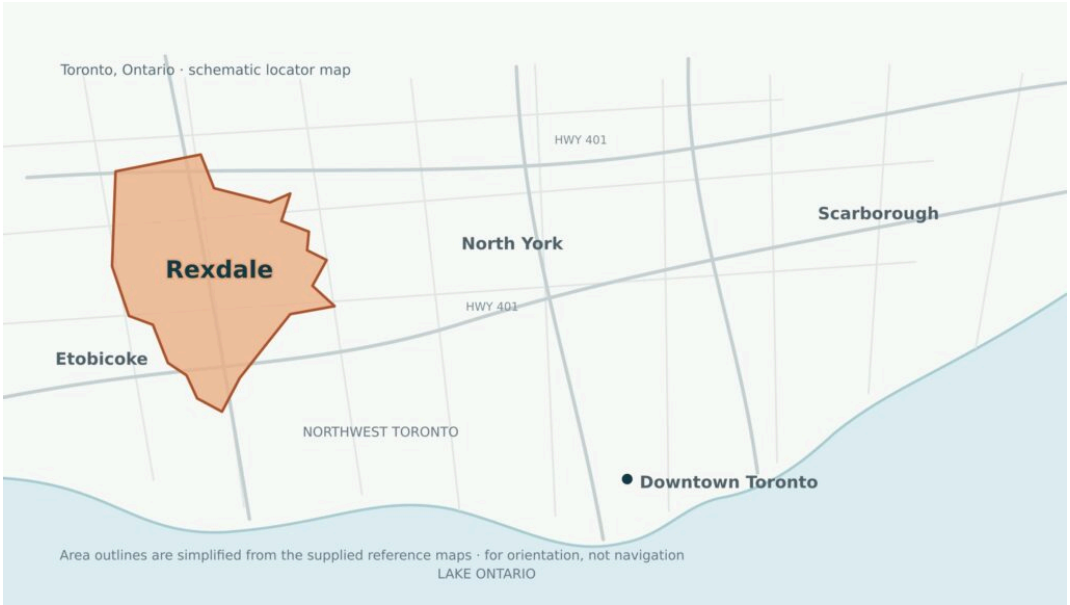
With funding from the United Way and Mitacs, the RCH team led a participatory action research project, which involved researchers from the Centre for Studies in Food Security, who trained and worked with community resident researchers to co-facilitate a feasibility study to determine whether it was desirable and feasible to run a community grocery store out of the Rexdale Community Hub. The team then piloted a prototype social supermarket and documented and evaluated lessons learned on whether it could remain operational. The Rexdale Community Grocery Market was launched in June 2024 and has secured funding for another three years. The market intends to become financially sustainable while offering fresh, affordable, and culturally preferred foods to meet the needs of a food-insecure and ethnically diverse immigrant community.

The RCH sought a socially driven enterprise model for a community market to break free from the charitable approach they developed during the pandemic and create more opportunities for community members to exercise agency over their food choices. In a recent conversation with Amra Munawar, RCH's Executive Director, she emphasized the market's importance to the densely populated immigrant community, which faces varying degrees of food insecurity. She recognizes that for some, food charity is still needed—while for others, engaging in a socially focused retail space is preferred to enhance dignity, belonging and care:

> I think this market has lots of potential in terms of building community members' capacity. We can offer retail experience for some participants, and the market itself is very welcoming. If there are seniors with physical limitations, the staff help them out, and they go with them to shop. And sometimes, we understand that some people, they cannot purchase things, and without hurting their dignity, we ask how we can support them. So, the market is not a regular store; we run the market with compassion and care.

The staff, volunteers, and organizers of the market do not see this initiative as being able to fully solve the challenges that immigrants face in their settlement journey in Canada. However, participants in the CGM program say the market provides convenient access to fresh, affordable food and ingredients. In a high-rise community with somewhat limited transit access, residents value the Market for its convenience in their daily routine, especially those with mobility issues, such as seniors or parents with small children. We see the CGM as a stepping stone toward greater community self-determination in the food system, while also providing training and work opportunities and supporting newcomers who currently lack the English language skills needed for mainstream employment. The RCH's community-engaged and participatory research project involved training and employing Rexdale residents to develop a feasibility study (which informed a longer-term business plan) and to support the project's ongoing evaluation by monitoring the impacts and operational challenges the initiative faces. The Hub also employs community members to run the market in collaboration with staff. It works with a local flea market vendor to purchase and deliver the food every week. The focus on community assets, intersectoral collaboration, and creating a space for more self-determined food access through social enterprise marks a significant shift away from a traditional food charity model often prescribed to communities like Rexdale—and a big step toward greater community-level food system governance.

Figure 1: Toronto map and Rexdale



Location of Rexdale within Toronto. The highlighted boundary is approximate.

The Scarborough Food Security Initiative (SFSI)

Scarborough is a vast urban region to the east of the city's downtown core. It is considered an inner suburb because of its location within the Toronto metropolitan area and its history as a suburban area amalgamated into the city of Toronto in 1998, along with East York, Etobicoke, North York, and York (Government of Ontario, 2025). Although its distance from the downtown core makes it a suburb, its proximity to other established parts of Toronto and its density qualify it as an "inner" suburb (Stevenson, 2017). Scarborough's population is over 600,000 people, over half of whom are immigrants (55.5%), mostly from Asia, Southeast Asia, and the West Indies (City of Toronto, 2021).

Food insecurity in Scarborough is a significant issue. While there is little research that details the exact degree to which food insecurity is experienced, local community–based organizations understand that there is an ongoing and high prevalence of food insecurity in Scarborough, particularly among immigrant and low-income individuals and families (SFN, 2025). In 2015, community-based organizations and concerned residents came together to collaborate on efforts to address the impacts of food insecurity and food system injustice in the region, and to create a point of democratic access to the food system for immigrant populations—forming what is now called the Scarborough Food Network (SFN, 2025). One of the more recent organizational additions to this network is the Scarborough Food Security Initiative (SFSI).

When discussing the origins of the SFSI, founder Suman Roy often tells the story of neighbours gathering in the early days of the COVID-19 pandemic and pooling pocket money to buy food for a few households facing food crises. The initiative grew out of informal mutual aid for friends and neighbours, with the assumption that it would be a short-term project. Fast forward five years and the SFSI has established six food banks within community housing buildings, runs several meal programs, manages several community gardens, facilitates youth cooking classes, operates an immigrant entrepreneur food business start-up program and employs a dozen individuals who engage in international advocacy and policy research on food security (SFSI, 2024). Despite running its own food banks, the Initiative is highly critical of charity dependency. It has grounded its strategic planning in long-term social change for Scarborough communities densely populated by immigrants and newcomers, demonstrating its role in shaping food access, acceptability, and agency.

The SFSI's mandate is to "empower Scarborough and provide innovative solutions to poverty reduction through dignified access to food," and it "advocates for and believes that good healthy food is a human right" (SFSI, 2024). The

Initiative's work is unique in its focus on newcomer, immigrant, and refugee well-being. The 2024 Annual Report notes that 95% of recipients of support through SFSI programs are immigrants living in the Scarborough region. Of that, 72% have been in Canada for one year or less (SFSI, 2024), emphasizing the intersection between the settlement process and food insecurity.

The Initiative takes a three-pronged approach to responding to the impacts and causes of food insecurity for Scarborough residents: 1) Emergency food, 2) Long-term impact and 3) Research and advocacy. It maintains food bank delivery within community housing to ensure ongoing support for those seeking emergency food. Roy and staff recognize that broader social change is needed to ease the pressures residents face around housing, employment access, and surviving in a society that lacks support for newcomers and immigrants in Canada.

As part of its role in facilitating publicly accessible knowledge sharing, the CSFS hosted a public event in 2024 on immigrant food security and entrepreneurship in Scarborough. As a featured panellist, Suman Roy shared his perspective on food banks in Canada:

> Even prior to starting the initiative, if anybody asked me about food banks, the first thing I would say is that they are the biggest problem for food security… they should not exist. They create more food insecurity than they do good. And now the irony is, I now run six of them. But I still strongly believe that food banks were created as a very temporary solution… but we cannot stop the emergency bandage because people are living in dire circumstances. So, we still have food banks, and we have gardens, kitchens and fresh food markets to keep people fed.

Suman and his colleagues recognize Scarborough's reality and the structural inequities communities face when living in a part of the city that lacks basic infrastructure for residents' well-being.

Beyond emergency food support and access to fresh food, the Initiative also aims to empower immigrants in the community through career development and entrepreneurship training. "Startup Scarborough" is a three-month program that supports aspiring immigrant food entrepreneurs in launching, strengthening, or scaling their businesses (SFSI, 2024). The mentorship program offers basic guidance on marketing, funding, and business growth to help program participants advance their ventures (SFSI, 2024). More advanced entrepreneurs can gain insights on international trade, branding, e-commerce, and scaling operations to "elevate their ventures to the next level" (SFSI, 2024). The Initiative developed "FoodHall TO," a brick-and-mortar food court space that provides a platform for hands-on entrepreneurial experience and mentorship to build immigrant food businesses and expand their customer base (SFSI, 2024).

SFSI's work and its emphasis on immigrant capacity building intersect with local-level planning for diversity, including its brick-and-mortar food court program and the establishment of community gardens and kitchens for immigrant communities. Entrepreneurship programs like those offered by SFSI directly strengthen participants' economic stability. They also build and strengthen the local food system by bolstering regional immigrant foodways. However meaningful their work, SFSI recognizes the deeply embedded structural limitations they face and the lack of government action to address the underlying causes of poverty. The organization concurs that income security is a root issue of food security in Canada, yet the Initiative also reinforces a nuanced understanding of what food security means for immigrants in Canada by advocating for greater food system agency for the Scarborough community. Perhaps unintentionally, SFSI leadership also highlights the historic lack of diverse voices in Toronto and Canada's food policy discussions by bringing immigrant and racialized representation into advocacy for systemic change.

Figure 2: Toronto map and Scarborough

Location of Scarborough within Toronto. The highlighted boundary is approximate.

IV – Shifts in Recognition and Investment in Immigrant Community Assets, Knowledge and Innovation

Within a municipality that claims, "Diversity our Strength," and promotes its ethnic suburbs as a symbol of multiculturalism in city branding strategies (Almeida, 2022), we recognize that the City still struggles to address its ethnocultural diversity across the broader Greater Toronto Area. As Zhuang (2021) articulates, this inadequacy manifests as ad hoc planning approaches and inequitable resource distribution, contributing to the persistent marginalization of highly racialized and underserved communities (p. 114). Through "case studies" of two community-based organizations in Rexdale and Scarborough, we show how local groups and organizations have taken the lead with solution-based approaches to address the impacts of food insecurity on immigrant communities.

More federal and provincial-level government responses and policy changes are needed to create greater economic stability for all Canadians. Examples of necessary social policy reforms include a living wage, social assistance rates aligned with the cost of living, affordable housing, a basic income guarantee, stronger employee benefits, low-income tax relief, etc. (Tarasuk & McIntyre, 2025). Nevertheless, we argue that food insecurity, particularly from a 5As perspective, will persist even in the best-case scenario in which this country addresses or eliminates material deprivation (Edge, 2025). Foundational literature shows that physical and social environments significantly affect immigrant health and wellbeing, regardless of an individual's or household's economic position (Koc & Welsh, 2002; Patel et al., 2019; Edge et al., 2024). For example, broader societal and infrastructural challenges in outlying suburbs can reinforce food security barriers for immigrant communities. Issues such as aging urban infrastructure, high housing costs, limited mobility options, and gaps in public and transit services can also limit access to food retail (both cultural and mainstream) for many immigrants in Toronto (Bégin & Sharma, 2018). This, compounded with other variables—such as their level of English comprehension, their age, gender, ethnic background, legal status or the amount of time they have been in Canada—can reinforce vulnerability for many immigrants, having a significant impact on their health, well-being and food security (Maynard et al., 2018; Bessey et al., 2025). Further, many newcomers, including refugee claimants, those with precarious legal status, and/or international students, may not benefit from living wage policies; for example, if they are ineligible, face other employment barriers, or fear retribution (Regnier-Davies et al., 2022). While income supplementation measures are vital, they risk subsidizing business as usual on their own. Finally,

many community-based initiatives seek to strengthen the agency of racialized migrants who lack power in a system dominated by a few powerful actors (Edge, 2025).

Throughout this Chapter, we demonstrate the relevance and importance of food scholars paying increasing attention to immigrants' agency, assets, capacities, entrepreneurialism, and social networks for immigrant food security (Hammelman, 2018). The social enterprise model delivered by the RCH and the entrepreneurship programs offered by the SFSI, for example, have positive implications for immigrant communities and strengthen immigrant foodways by creating direct opportunities for cultural food access and immigrant food-focused entrepreneurship.

Greater attention to similar examples is needed to highlight instances of self-determination, community-level innovation, strategies for overcoming resource challenges, advances in food sovereignty, and necessary redistributions of power among collaborating institutions. Further, the study needs to examine how immigrants' personal and collective strategies for overcoming distance- and cost-related barriers transcend neighbourhood geographical boundaries, societal networks, and space, redefining how food access and consumption behaviours are determined in a multicultural society (Hammelman, 2018). As Edge and colleagues note, these strategies continue to evolve. In today's digital age, more and more migrants use online communities, digital platforms, and chat groups to coordinate more efficient and cost-effective procurement of culturally preferred foods (Edge et al., 2026).

Finally, we wish to emphasize that community-based organizations (e.g. settlement agencies, health centres, social service agencies, etc.) that are closely engaged with immigrant populations are often overlooked in the literature on food security—yet their efforts in addressing social support gaps are important for the health and wellbeing of underserved populations (Edge et al., 2026; Regnier-Davies & Edge, 2024). This matters because food practices, spaces, and policies have historically marginalized immigrants and promoted hegemonic understandings of food access that fail to consider immigrant foodways, knowledge, and skills and/or effectively engage immigrants as active and influential 'food citizens' (Bonnevera, 2025). The RCH and SFSI examples demonstrate that community-level organizations can carve out space for residents to respond to an issue that has a direct impact on themselves and their communities—especially for those who may not have direct paths or the ability to connect with the policy realm or believe that policymakers believe or care about their experience. Recognizing the role and value of immigrant-led organizations reconfigures the general understanding of food system governance by introducing actors who have not historically been food-focused—yet have been more effective at engaging racialized immigrant populations in food system issues than previous waves of the alternative food movement and established urban food policy councils (Charles-Rodriguez et al., 2023; Elliott et al., 2023; Roth et al., 2018). The work of such organizations complements the drive for broader policy reform and creates opportunities for diverse voices within policy discourse. As Canada works to strengthen the resiliency of local and regional food systems amid the cascading crises of geopolitical conflict, inflation, trade wars, climate change, and supply-chain disruptions, it must reflect the changing and increasingly diverse demographics of our contemporary society.

A note from the authors

In the months before publication of this Chapter, attention has been placed on the governance and operational management of the SFSI, raising concerns about the organization's capacity to manage finances effectively (Brockbank, 2026). We recognize that the allegations are concerning, yet we also emphasize that SFSI faces common challenges many small organizations experience, given its limited staff, capacity, and resources. At the time of writing, the allegations against founder Roy remain unsubstantiated in the public record. These claims do not overshadow the intent of this Chapter, which is to focus on the impacts and positive outcomes of the organization's programming and to emphasize that greater support to enhance organizational capacity remains a sectorwide need.

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PART 4. ADVANCING FOOD SECURITY THROUGH TEACHING, RESEARCH, AND PUBLIC ENGAGEMENT

Lastly, **Part 4. Advancing Food Security Through Teaching, Research, and Public Engagement** highlights the CSFS's enduring contributions by exploring initiatives that embody its commitment to innovation, interdisciplinary collaboration, and community engagement. The chapters examine the TMU Urban Farm as a model for integrating food production into the built environment through research, education, and sustainable urban design, and the pioneering Certificate in Food Security, the first university-level program of its kind, which has educated practitioners and scholars from around the world for more than two decades. Together, these examples demonstrate how the Centre has translated critical scholarship into practical action, advancing food security through teaching, research, policy, and public engagement. Looking ahead, the Centre remains well positioned to cultivate new generations of scholars and practitioners while continuing to shape more just, resilient, and sustainable food systems in Canada and beyond.

11. Enabling Rooftop Agriculture: Learning from Toronto and Beyond

JUNE KOMISAR

Abstract

As cities densify, rooftops offer space for food production, learning, and community activity. This chapter examines the development of productive green roofs in Toronto, focusing on teaching, design, research, and farming at Toronto Metropolitan University (TMU). It considers how municipal green roof policies and incentives have supported rooftop projects, while noting that these measures have not required food production. Drawing on student design proposals, educational initiatives, and the development of TMU's two rooftop farm sites, the chapter identifies practical considerations for adapting roofs to growing food, including structural capacity, safe access, growing conditions, and ongoing maintenance. The TMU Urban Farm illustrates how rooftop spaces can support research, farmer training, food distribution, and initiatives centred on Black food sovereignty and Indigenous foodways. These examples show how rooftop agriculture can improve food availability, agency, and acceptability while creating opportunities for community engagement and knowledge sharing. The chapter argues that, with appropriate design and sustained institutional support, productive roofs can become a valuable part of urban food systems.

I – Introduction

At Toronto Metropolitan University (formerly Ryerson University), researchers, teachers, and students have investigated green roofs for decades. Now, they also look at these sites as opportunities for food production. Supported by the Centre for Studies in Food Security (CSFS), several instructors and students are actively researching and designing rooftop growing spaces. Their involvement includes a variety of approaches, from examining technical issues and proposing new design initiatives to reviewing existing designs, understanding environmental concerns and benefits, crafting pedagogical initiatives, and surveying productive and other forms of green roofs.

Green roofs not only enhance a city's foodscape, but also create pollinator corridors, serve as teaching gardens and community spaces, decrease stormwater runoff, reduce the urban heat island effect, increase a building's heating and cooling efficiency, and provide calm retreats for the community. Such growing spaces can be an important resource for improving food security, particularly in our densifying urban cores. Availability (access to food), agency (policies and processes to enable food access), and acceptability (culturally appropriate food), three of the 5As of Food Security identified by CSFS, can be addressed by providing food-growing spaces, configured as demonstration/teaching gardens, allotment garden plots, community gardens, and/or market garden farms on rooftops where people work and live. But for that to happen, certain design elements must be addressed. Only certain types of roof conditions are suitable for productive food-growing spaces. Much learning is needed for the successful implementation of rooftop gardens.

In this chapter, we examine teaching and learning about green roof design and farming at Toronto Metropolitan University (section III). Supported by instructors and researchers at the Faculty of Engineering and Architectural Science (FEAS), TMU students have presented work examining the recent development of productive rooftops to help understand the strategies and benefits of growing on roofs, and what works when planning purpose-built or retrofitted productive roofs. This learning strategy is also evident in the two current rooftop gardens at TMU (section IV). We start

(section II), however, with guidelines and bylaws, which created the context for the evolution of rooftop farming in Toronto.

II – Rooftop Gardens in Toronto: Guidelines and Bylaws

The practice of growing food on rooftops is not new, but a recent increase in such practices suggests that a review of research and implementation of these spaces, their potential, and their evolution can point to ways we can enhance food security while mitigating other urban problems. Toronto's green roof initiatives began decades ago. Mountain Equipment Co-op, a sporting goods store, installed one of Toronto's first green roofs in 1998. The Toronto-based non-profit Green Roofs for Healthy Cities was founded the following year, strengthening the movement (Green Roofs for Healthy Cities, 2025). Around the same time, researchers, including some at TMU, studied how and where to install green roofs and their impacts. We can see this in the work of university students. In 2000, the TMU architecture student Liz McElcheran proposed greening the elevated walkway surrounding Toronto's City Hall in her design thesis. McElcheran cited a 1999 Canada Mortgage and Housing Corporation (CMHC) green roof study and the existing Mountain Equipment Co-op roof to argue for the desirability and feasibility of this transformation. Although she does not present it as a productive roof, her thesis plausibly lays out a strategy for a food-centred retrofit and discusses the benefits, using many historical examples to bolster her proposal. McElcheran carefully outlined the safety issues involved in designing habitable (productive and/or recreational) green roof retrofits, listing lighting, parapets, fire safety, and, of course, load requirements as crucial design concerns (McElcheran, 2000).

Not long afterwards, in 2004, the Andrew and Valerie Pringle Environmental Green Roof was incorporated into TMU's new George Vari Engineering and Computing Centre. Originally planted with flowers (in a relatively deep planting bed) to provide a pleasant visual impact for residents of a neighbouring condominium, the roof was later transformed into a productive green roof: the TMU Farm. The Farm was a student-led initiative that began years later and will be discussed further below.

By 2009, a report led by TMU Professor Hitesh Doshi, also chair of the City of Toronto Green Roof Technical Advisory Group, resulted in the enactment of Toronto's Green Roof Bylaws nine years after McElcheran's forward-thinking thesis proposal and the installation of TMU's Pringle Green Roof. The bylaws, along with supplementary guidelines, promoted and still enable green roof projects throughout the city, many of which include or are dedicated to food production.

From condominium and restaurant roofs to school and organic grocery store roofs, many productive growing spaces have been installed, totalling more than 1200 green roofs since the introduction of Toronto's bylaws (City of Toronto, 2017a; Liao & Drake, 2025).

How Green Roof Guidelines Enable Rooftop Urban Agriculture

Although Toronto installed a number of green roofs more than 20 years ago, the practice has expanded since guidelines and bylaws were introduced in 2009. Over the last 15 years, Toronto has implemented its Green Roof Bylaw to decrease stormwater runoff, mitigate the heat-island effect, and more. Although the program expanded to include an Eco-Roof (both green and cool roof) Incentive Program, the bylaws have never required productive green roofs (for food production). That said, urban farms and community gardens on rooftops might be less prevalent without the financial incentive program that helps cover implementation costs.

Since implementation, the City has supported the installation of 627 Eco-Roof projects. The City could afford this program through fees collected from variances or exemptions for applicants who could not or would not install an eco-roof. When the bylaws required it, applicants paid cash in lieu of constructing an eco-roof. The Province of Ontario's

recent removal of the green roof requirement may endanger funding for this incentive program, which, at the time of writing, is still in place.

Until recently, the City of Toronto required all new buildings (or additions 2,000 square meters or larger in gross floor area) to comply with eco-roof requirements. In November 2025, the Province of Ontario made this requirement voluntary. However, it is still recommended that all new industrial buildings, "big box" stores, and any building with a sizable roof install a green roof or reflective-material roof. Perhaps even more significant than the former requirement is that building owners are seeing the benefits of green roofs.

Both productive rooftops that have benefited from Toronto's Eco-Roof program and roofs that don't qualify for subsidies are sprouting up across the city. One beneficiary was the Carrot Commons roof, a retrofit that showcases a variety of growing strategies to the public. Because of the Eco-Roof Incentive Program's specific constraints, Regent Park's rooftop raised-bed gardens for residents in apartment buildings built by The Daniels Corporation did not qualify for subsidies. Although raised-bed garden plots have been installed, they do not currently qualify for incentives. Nonetheless, these gardens are successful because of careful planning and professional guidance on growing (City of Toronto, 2017c; HoffmannHayes, n.d.).

Raised beds for community gardening on an apartment building roof in Regent Park, Toronto (Photo by Joe Nasr).

Guidelines Beyond Toronto

Examples worthy of attention come from North America more generally, as well as Halifax, Calgary, and Montreal:

As far back as 2006, the Canadian Mortgage and Housing Corporation (CMHC) published a resource manual to help municipalities create green roof guidelines and policy (Lawlor et al., 2006). Drawing on ideas from 24 urban regions across Canada, the US, and internationally, it explains the basics of green roof technology and offers general ways to calculate the benefits. This manual does not discuss edible or otherwise productive landscaping, although it can serve as a basis for many other guidelines.

Halifax, Nova Scotia, created a manual in 2009 (Leung et al., 2009) that includes green roof guidelines in its Administrative Order addressing stormwater runoff. However, the document does not mention urban agriculture as a component of these roof strategies (HRM & Halifax Water, 2020).

Calgary, Alberta, published guidelines in 2014 and included a section on green roofs in its 2007 stormwater control handbook (City of Calgary, 2014). Notably, Calgary now has a residential container garden rooftop farm atop a 2022 apartment building called GROW and a rooftop vegetable garden, designed in 2023 for Southcentre Mall, which was not originally designed for a green roof (Mazade, 2024). The mall project takes advantage of the large roof expanse available at a shopping mall (Southcentre Mall, n.d.). Food grown here benefits a non-profit, Made by Momma, that helps provide access to healthy prepared meals (Southcentre Mall, n.d.).

Significantly, Montreal's green roof guidelines include a section on accessible green roofs—roofs designed to be safely accessed by residents and maintenance staff (Arteau, 2014). Although these technically rigorous guidelines do not directly address food production, there is a tacit understanding that some future roofs will be designed for this purpose.

III – Teaching and Learning About Green Roof Design and Farming

Design strategies for creating various kinds of green roofs are now taught in many schools and in continuing education courses. From feasibility studies to design and implementation, students propose a variety of green roofs at different scales and on different building types. Some cities have guidelines to support this process, such as the City of Toronto's Green Roof Construction Standard (City of Toronto, 2017b).

Stemming from teaching and research, a 2008 symposium at the TMU Department of Architectural Science (DAS), supported by CSFS – "The Role of Food and Agriculture in the Design and Planning of Buildings and Cities" – looked at green roofs as one of the design opportunities for scaling up food production in urban areas. A DAS research team of faculty and students followed this symposium with an exhibit at Toronto's Design Exchange called Carrot City: Designing for Urban Agriculture. The exhibit featured both realized urban agriculture projects and theoretical work by students in the DAS program, including productive green roofs as a fundamental design category for urban agriculture. This exhibit, an accompanying book and site travelled to many cities, adding case studies along the way and increased knowledge of design strategies for urban agriculture, including rooftop projects (Gorgolewski et al., 2011).

DAS is one of many architecture programs that teach green, productive roofs at various scales. Design and theory courses throughout the curriculum familiarize students with productive roofs. Upper-level courses with themes such as designing the productive city and creating local food landscapes help students imagine what a robust urban agriculture strategy for Toronto and other urban environments could look like, including using rooftops to meet strategic goals.[1] In addition, several students in the DAS Master's programs have made this subject the central focus of their theses.

Continuing education programs are also essential for enabling green roof design and maintenance, including productive ones. They can help increase the number of productive green roofs. Within TMU's Chang School, the Food Security Certificate Program has taught food security, including growing food on rooftops, since 2003. The instructors teach about the 5As of Food Security: availability, accessibility, adequacy, acceptability, and agency, through their courses (see Chapter 12).

One notable continuing education initiative beyond the university environment in Toronto is the Living Architecture Academy, an initiative of Green Roofs for Healthy Cities. Both design and theory courses provide contractors, engineers, and architects with technical, theoretical, and design skills needed to incorporate productive growing spaces into buildings as an integral part of the project (Green Roofs for Healthy Cities, 2025). In its early years, GRHC focused primarily on green roofs more generally, not specifically on implementing productive green roofs. However, the potential of productive roofscapes soon became evident. Their Cities Alive Conferences fostered new ideas about the potential of green roofs, including ideas from the Conference's student design challenge. In 2009, the winning Student

1. Specifically, courses such as Mark Gorgolewski's "Architecture Option Studio: Creating Local Food Landscapes' and the course "Creating the Productive City," taught both as a lecture course and design studio, addressed green roof design in its early years; GRHC focused primarily on green roofs more generally, not specifically on implementation.

Design Challenge team was from DAS. The architecture students proposed food-growing spaces in the commercial strip of Cliffside Village, Toronto. By relocating parking lots to an underground garage and placing a productive green roof on the at-grade garage roof, they located growing spaces where residents live and shop. Food production was visible, convenient, and part of the urban fabric. This design for ease of access to food-growing spaces can be seen as a strategic way to enable both availability and culturally acceptable food – two of the 5As of Food Security (mentioned above).[2]

The potential for creating food-producing rooftop spaces became even clearer when Green Roofs for Healthy Cities and other food security advocates in Toronto (FoodShare Toronto, Toronto Food Policy Council, and urban farm organizations) partnered with the CSFS for an international Urban Agriculture Summit at Ryerson University in 2012. The international summit included presentations from farmers, including rooftop farmers, as well as architects, practitioners, educators, and researchers. Since then, rooftop food production has increased tremendously, and recent research is helping build knowledge in the field.

Not long after the Summit, in 2013, FoodShare Toronto and the Toronto District School Board created the Eastdale Collegiate rooftop farm. Funding from several foundations helped launch this almost 1,500-square-meter rooftop project, designed to teach high school students about all aspects of growing, preparing, and selling food. This hands-on educational project shows the importance of educating the next generation to be food producers. These youth could build careers from the hands-on experience this farm initiative provides, or at the very least, gain the knowledge to grow food of their choosing (acceptable, culturally appropriate food) and appreciate the fresh, local food they buy in local markets (Brown, 2013).

How Do Students Envision the Future of Productive Roofs?

TMU's Department of Architectural Science, the Program of Environmental Applied Science and Management (EnSciMan), and Urban and Regional Planning students have been researching green roofs and productive green roofs. Some of their supervisors are CSFS Associates, who see a strong connection between urban rooftop growing and food security. The student work ranges from the practical to the visionary, like McElcheran's architecture thesis mentioned above. Some argue for installing green roofs for environmental reasons, such as Beth Anne Currie's (2005) thesis, which studied how green roofs populated with a variety of plantings mitigate air pollution in Toronto. Beyond design studies, emerging research from several fields offers useful tools for architects designing green roofs and for farmers/managers implementing rooftop urban agriculture initiatives. One such study is Angela Yick Ting Au's (2007) TMU EnSciMan program master's thesis: A Planning Tool of Urban Green Roofs.

Au's (2007) study to develop a planning tool for green roofs looked at two factors – stormwater runoff and energy benefits – but not the potential for food production. Within these two factors, Au notes differences in outcomes for extensive roofs (using ground-cover plants such as sedum) and intensive roofs (higher plants that can include bushes and trees, and, of course, agricultural plants) (Au, 2007). Their study emphasizes that, despite higher investment and maintenance costs, higher-profile plants provide greater energy efficiency (particularly by mitigating the urban heat island effect) and stormwater retention (Au, 2007). Although the data reported in Au's thesis are now dated, one valuable aspect of their study is the notion that green roofs are more beneficial when many factors are measured. Adding another factor – food production – provides a greater value for a green roof, as noted in the many ways the TMU roofs are used.

Researchers at TMU, the University of Toronto and beyond have been gathering data about how different types of plantings can be beneficial in a variety of ways. Studies comparing the results of different planting strategies and species on rooftops can help us understand the benefits of planting agricultural plants on deeper-soil roofs (intensive rooftops)

2. The team entry was called "Cliffside Village, Scarborough, Canada, despite higher investment and maintenance costs, higher-profile plants provide greater energy efficiency (particularly by " (an urban agriculture strategy for strip mall developments). Team members: D. Feinmesser, Y. Mityuryayeva, T. Tso, and A. Hendershott. 2009.

instead of sedum or other low plants in shallow rooftop soil conditions (extensive rooftops). Some researchers are examining differences in evapotranspiration under different conditions and with a variety of plants. Evapotranspiration is the transfer of water into the atmosphere through evaporation and transpiration. One research question is whether taller plants requiring deeper soil (such as food crops) outperform sedum (which needs shallower soil media) in evapotranspiration and the resulting benefits to the building and the microclimate around the roof (O'Carroll et al., 2023).

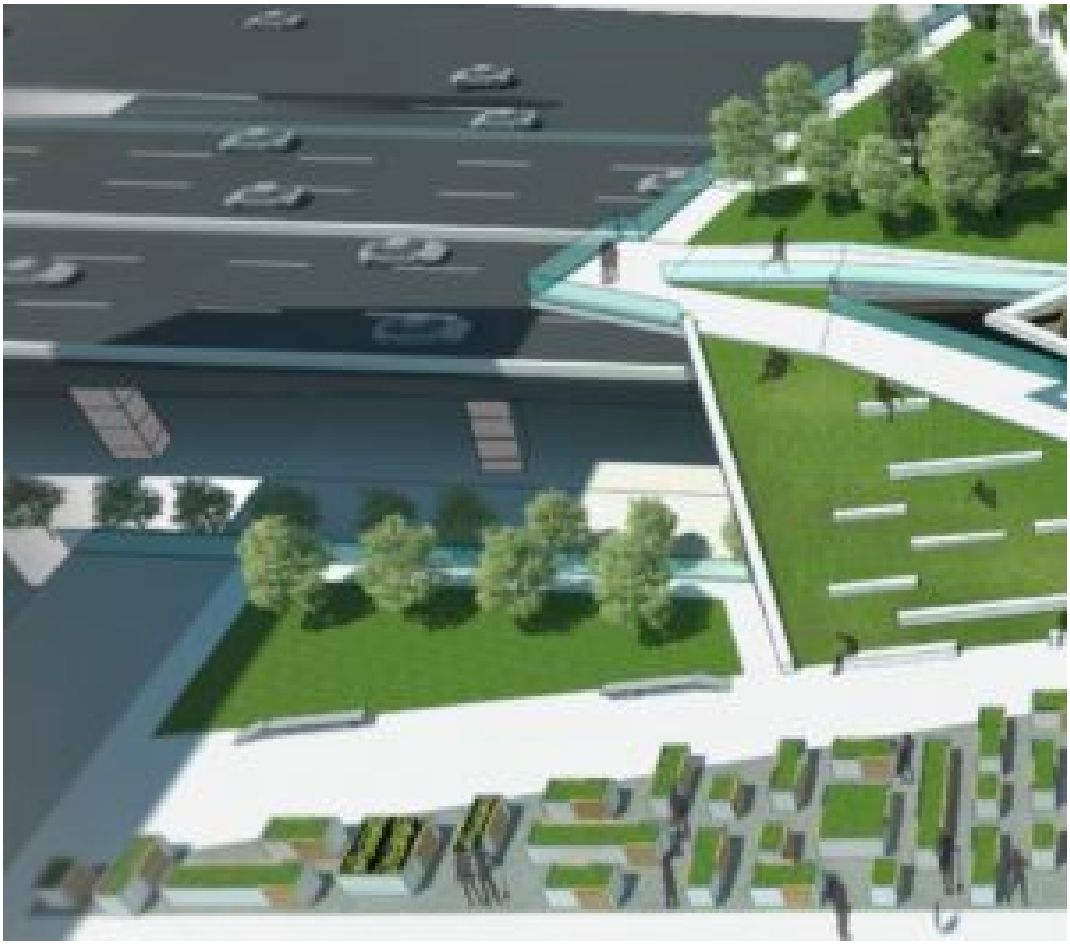
When paired with the findings of another ENSCIMAN thesis, Assessing the Communication Network of a Budding Industry: Rooftop Urban Agriculture in Toronto, by Daphne Page (2014), we can hypothesize that sharing knowledge about rooftop food production would be a key factor in strengthening food production capacity in dense urban areas. The thesis examines civic food networks (CFNs) in relation to local food movements and emerging rooftop urban agricultural initiatives (Page, 2014). Page (2014) explores the knowledge-sharing potential that would help expand both the implementation and success of rooftop urban agriculture in Toronto and elsewhere. She conducted her research when rooftop farming was relatively new, and examples were scarce. Indeed, even today, sizable projects are still uncommon. Beyond the number of examples, rooftop growing still faces many challenges, from weight constraints that require engineered soil to finding buildings that are appropriate for, or adaptable to, production (Page, 2014). The need for effective knowledge sharing is palpable.

In TMU's School of Urban and Regional Planning, Jack Douglas Lawson's (2021) thesis, A Pathway to Rooftops: A Feasibility Study of Green Roof Typologies at 105 Bond Street, explored what downtown Toronto would look like with green roofs added to existing buildings. His example, a 1920s building on the TMU campus, demonstrates the challenges of retrofits; yet, despite pre-existing mechanical systems, elevator penthouses, stair headhouses, skylights, and other obstructions, the thesis shows a feasible strategy (Lawson, 2021). The proposal includes "1) a holistic meeting space for students, faculty and school-side donors or stakeholders on its lower tier along with both (2) a native pollinator garden, and (3) research and food production beds on the upper tier" (Lawson, 2021, p. 11). Many well-known urban rooftop farms are located on retrofitted existing buildings, notably Gotham Greens and Brooklyn Grange in New York City (Page, 2014). The TMU Engineering roof, while purpose-built as a green roof, needed considerable modifications when the commitment was made to transform it from its original form as a field of flowers into a productive space. The constant presence of farmers, students, volunteers, and visitors is one of the biggest shifts to consider when designing productive roofs rather than other green roof types.

What is potentially more exciting, as we teach the design and engineering aspects of productive green roofs, is the prospect of architects educating clients about the advantages of including a rooftop farm or allotment garden space in the program from the start. One example is the Garden Village project—a Berkeley, California, student housing complex from 2017 —designed with rooftop farms on every building (RAD Urban, n.d.).

Design Proposals from TMU's Department of Architectural Science

Within the Department of Architectural Science, Bijan Ghazizadeh's (2015) master's thesis envisioned an elevated corridor that would create a Continuous Productive Urban Landscape (CPUL) in downtown Toronto. The proposal drew inspiration from the Continuous Productive Urban Landscape (CPUL) concept developed by André Viljoen and Katrin Bohn for London, UK (Viljoen, 2005; Viljoen & Bohn, 2009). In his thesis, The Gardiner SkyPark: Continuous Productive Urban Landscape as Infrastructure, Ghazizadeh (2015) proposed integrating pollinator gardens, linear park space, and productive community gardens into an elevated route through the city, giving urban residents access to growing spaces. The SkyPark would also create a car-free recreational and nature corridor for walking, jogging, and cycling, weaving through downtown Toronto, crossing the Gardiner Expressway, and ultimately terminating at Lake Ontario, while providing access to and views of garden spaces along the route (Ghazizadeh, 2015).



Productive urban landscape rendering (from Bijan Ghazizadeh's thesis proposal).

Eric Cheung's (2025) TMU architecture master's thesis, A Place for Urban Food Systems, envisions a food hub with a productive green roof to bring fresh local food to Scarborough, a borough of Toronto with comparatively limited access to farmers' markets, community growing spaces, and urban farms. A central concern was providing access to culturally appropriate food (acceptability) to this largely immigrant population (Cheung, 2025). This adaptive reuse proposal addresses the recently abandoned elevated Scarborough Rapid Transit (Scarborough RT) rail line and its sizable metro and bus station. Cheung's proposal transforms the aging infrastructure running through Scarborough Centre into a linear elevated farm on the rail line, with a food hub below. The design proposal includes raised garden beds, trellised growing spaces, greenhouses on the elevated structure for year-round growing, an elevated walking path that traverses Scarborough's urban core, and spaces for a farmers' market, food processing, teaching kitchens, and food shops inside the former metro station (Cheung, 2025). Here, the rooftop farm component is part of a larger food hub system.

Proposed food hub in Scarborough rendering: Toronto showing the elevated productive space on a former rail line (from Eric Cheung's thesis proposal).

One of Cheung's (2025) central concerns was access to culturally appropriate food for the largely immigrant community the proposed food hub would serve. As in McElcheran's (2000) thesis, case studies demonstrated the feasibility of the design proposal. Examples of linear elevated gardens, including the Coulée Verte René-Dumont (also known as the Promenade Plantée) in Paris and the High Line in New York City, showed how elevated urban infrastructure can be transformed into green, recreational space. La Cité Maraîchère in Romainville, just outside Paris, provided another model: a community teaching greenhouse integrated into a broader community food hub. Together, these examples informed a potentially iconic project intended to provide "visible and accessible opportunities for public participation in food systems in unexpected places" (Cheung, 2025, p. 4).

Greenhouse and food hub "La Cité Maraîchère" in Romainville, near Paris, France (Photo by Joe Nasr).

In TMU's Department of Architectural Science, instructors crafted problems (design briefs) that included rooftop farms and other green roofs for their students to solve in their design studios. The 2nd-year design studio has included a green roof for several years as part of library design projects. In fall 2025, the 2nd-year project design brief shifted

to an even more food-focused project: a productive roof above a food hub.[3] From early design studios to graduate school thesis projects, students are learning about and promoting solutions to green our cities and expand local food production and access.

IV – Rooftop Urban Farm at Toronto Metropolitan University

Beyond theoretical proposals, TMU students began putting urban food production into practice at an opportune moment. In 2011, two nutrition students, Catherine Lung and Stephanie Nishi, proposed growing vegetables on unused campus plots. With support from the Centre for Studies in Food Security and a design-build team of Department of Architectural Science students using recycled materials, Rye's HomeGrown was born. Led by Lung, the initiative expanded to nine ground-level sites across campus, ranging from a garden designed for campus preschoolers to a street-front garden near the Student Campus Centre showcasing crops from around the world. Following a small experimental plot on a green roof in 2013, the roofscape was transformed between 2014 and 2016 into a major expansion of Rye's HomeGrown.

Today, TMU has rooftop growing spaces on two campus buildings, the Pringle roof on the Engineering building (mentioned above) and the podium roof of a recently built classroom and dormitory building–the Daphne Cockwell Complex (DCC). The DCC roof includes tool storage and a large gathering space with a deployable sunshade on a large steel frame, enabling workshops, food events, and relief from the heat for farmers. Its sizable greenhouse has become a multi-functional space. The rooftops support food growing, distribution, community engagement through workshops and tours, food justice initiatives, and broader promotion of food literacy (Toronto Metropolitan University, 2019).

The TMU Urban Farm and the CSFS partner in administering faculty- and graduate student-led research on the roofs. This "Living Lab" research on the roofs provides the seeds for understanding the impact food-producing roofs have on buildings, neighbourhoods, and cities. The TMU farm's second rooftop on the DCC building shows how green roofs can serve as sustainability and amenity spaces, as well as productive growing spaces, opening up possibilities for stronger community engagement and more. These growing spaces can be an important part of strategies to increase food sovereignty, availability, and knowledge about food and culture (Living Lab, n.d.).

The TMU Urban Farm hosts a hands-on Rooftop Farmer Training Program. It is also the site of Black Food Sovereignty initiatives on the roofs: The Harvest Collective and the Learning Circle bring to the Black faculty, staff, and student community the opportunity to enjoy the harvest of medicinal and food crops that are traditional to the African Diaspora and, until recently, difficult to find in Toronto. Another Farm project, the Indigenous Foodways program, "supports and celebrates traditional Indigenous ecological knowledge and ways of growing" (TMU Urban Farm, n.d.; Walker, 2026).

3. 2nd-year design studios in 2024 were led by Dr. Terri Peters; the 2025 food hub project is part of the 2nd-year design studio led by Dr. Dustin Valen.

Toronto Urban Farm at the Pringle roof on the Vari Engineering Building, Toronto Metropolitan University (Photo by Joe Nasr).

Farming on the Pringle green roof changed what was possible to produce on a dense urban campus. During the first years, the Urban Farm Manager, Arlene Throness, and the Urban Farm Operations Coordinator, Jayne Miles, were hired to implement an ambitious transformation. They worked within the green roof's soil-weight limitations, creating low walking paths for farmers and volunteers, enabling built-up deep garden beds for a variety of crops, and focusing on building rich soil for propagation.

What began as a small student-led initiative grew through strong stewardship from the Centre for Studies in Food Security, university funding, and a strong relationship with University Business Services. The farm is now a formal department within food services, supported by CSFS, Facilities Management, and FEAS. The many food-growing and research initiatives that now take place at the two Urban Farm sites at TMU engage faculty, students, and the community. With attention to plant nutrition, crop rotation, rooftop weather conditions, soil health, and more, Throness and her team nurture a farm that produces 2,500 kg of food per year. Committed to food justice, one third of the farm's crops are donated to nearby community organizations, one third is sold to the public, and one third is sold at a discount to students. The event space on the DCC roof was designed to help the University and local community learn about, celebrate, and share food together.

One notable aspect of these two campus rooftop farms is that both were designed as green roofs from the start, although neither was initially intended as a food-producing space. The Engineering green roof, initially built with about four inches of soil and sown with flowers, needed some retrofitting when the farm was introduced. Over time, TMU added sinks for washing produce, irrigation hoses, repeated additions of soil and compost, adequate walking surfaces and barrier fencing that meets rooftop code conditions for human habitation. The DCC roof, always intended to be a habitable green roof, was redesigned for farming before the building was even completed, enabling an easy transformation from a leisure green space for students to a productive roof with an event space for the University and community. A parapet or fencing that meets safety regulations, along with clear walking paths that protect the roof membrane, are crucial for productive roofs. A tool shed, vegetable preparation area, shady space for gardeners, seed propagation areas, and an elevator to transport soil, plants, produce, and tools can further support success.

The TMU Farm and the Pandemic

While TMU's original rooftop farm shared and sold its produce in several ways, its contributions to programs alleviating food insecurity increased during the pandemic, showing the importance of local micro-farms in combating supply chain issues. The pandemic disrupted food distribution networks and exacerbated food insecurity among vulnerable populations. Some people were at risk if they left home to shop for food, so access to healthy, fresh food became a struggle. In Toronto, many non-profits responded to pandemic-exacerbated food insecurity, and the TMU rooftop farm helped.

The rooftop farm donated fresh vegetables and herbs to the Moss Park Market, an initiative of Building Roots, a nearby Toronto non-profit that serves the Moss Park community, a neighbourhood with rent-geared-to-income apartments that was severely impacted by the pandemic. Volunteers at the Market assembled hundreds of food bags weekly at the Market's small shipping-container "office." Although much of the food bag content was purchased, the weekly bags also included fresh vegetables from local farmers and distributors, community gardens, local bakeries, and food grown on the TMU roof. After the pandemic, the TMU Urban Farm continued to contribute to these weekly food bags. In 2023, "Toronto Metropolitan University's rooftop urban farm donated 37 crates, totalling 436 lbs [197 kg] of ecologically grown produce over four months" (TMU Urban Farm, n.d.). Now, after the pandemic, the TMU Urban Farm uses a food distribution model that is designed to serve various communities; one third of the food distribution is donated to both students who are food insecure and Building Roots for its food distribution program, serving the community at large (Building Roots, 2021; Throness, 2023).

V – Conclusion

As cities densify, ground-level space is at a premium. As cities densify, ground-level space is at a premium. Rooftop surfaces can provide additional space for food production, community activities, pollinator gardens, and other urban uses. From increasing biodiversity in cities to teaching food literacy and promoting cultural knowledge sharing through programs such as the Black Food Sovereignty initiatives and Indigenous Foodways at the TMU Urban Farm, growing where people live and work is a winning proposition. City initiatives such as the Green Roof Bylaws and financial incentive programs often help lead the way. Trends show that rooftop farms and growing spaces are increasing. Heat mitigation, additional recreation and community space, increased urban biodiversity, and, perhaps most important of all, aspects of food security are benefits we can reap from a robust green roof program. As we study more projects like this, the benefits should become increasingly evident.

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12. The Certificate in Food Security: Teaching Agents of Change

JOE NASR

Abstract

The Certificate in Food Security at Toronto Metropolitan University (formerly Ryerson University) was the world's first university-level program dedicated to food security as a comprehensive, interdisciplinary field of study. Since its launch in 2003, the Certificate has provided flexible, fully online education designed to build food security literacy and prepare students to become agents of change across diverse professional sectors. This chapter traces the Certificate's origins, evolution, and enduring impact over more than two decades. It examines the institutional partnerships, pedagogical innovations, and collaborative curriculum development that enabled the creation of a pioneering educational program grounded in the Centre for Studies in Food Security's five dimensions of food security. The chapter explores how the curriculum has evolved to incorporate emerging issues including urban agriculture, Indigenous food systems, gender, and food policy while maintaining a strong commitment to experiential, community-engaged, and internationally informed learning. It also assesses the program's outcomes, demonstrating how graduates have applied food security knowledge in professional practice, community organizations, public policy, and graduate education. The chapter argues that the Certificate's success stems from its integration of interdisciplinary scholarship, flexible online delivery, place-based experiential learning, and strong community connections. As food insecurity and food systems challenges continue to evolve, the Certificate provides an enduring model for higher education that builds professional capacity while cultivating informed practitioners who can advance more equitable, sustainable, and resilient food systems.

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I – Introduction

The Certificate in Food Security (FSC) at Toronto Metropolitan University (formerly Ryerson University) is a pioneering higher-education program. Launched in 2003, the Certificate was the world's first university-level program dedicated to studying food security as a systemic concern. Developed by researchers at the Centre for Studies in Food Security (CSFS), it used the CSFS 5As (see Chapter 1 in this volume) to plan its course palette. The FSC was designed to cover both Canadian and international aspects of food security, and to be offered fully online.

For over 20 years, the Certificate has provided applied and professional training to help students (Ryerson University, 2002, pp. 9-10):

- Articulate food security and its relationship to food systems, food policy, and health promotion concepts;
- Assess and monitor the food security situation of individuals, households, communities or nations;

- Identify the forces contributing to food security and insecurity at an individual, household, community or national level;
- Identify best practices for food security within Canada and other nations;
- Design effective and integrated programs, services or policies that contribute to food security;
- Evaluate the effectiveness of food security programs and policies.

A key objective of the program has been for graduates to bring food security thinking into a wide range of professional sectors. Food security connects to health, education, social well-being, the living environment, the economy, and, of course, food systems. Policies and practices in these and other sectors affect people's food security, so FSC graduates bring food security thinking to bear on their professions and their own lives.

This chapter explores the development, evolution, and impact of this pioneering certificate program. It begins (section II) by examining the Certificate's origins, including the motivations behind its creation, the institutional context in which it emerged, and the collaborative efforts that enabled its development and launch. Section III traces the program's pedagogical evolution and outcomes over more than two decades, examining its collaborative course-development process, evolving curriculum, online and experiential teaching approaches, and patterns of student participation and achievement. Section IV considers the main features that have shaped the Certificate, including its integration of international and locally grounded learning, place-based experiential education, stable yet precariously employed teaching core, interactions between adult learners and degree students, and emphasis on building food security literacy and professional capacity. Finally, section V considers the Certificate's enduring relevance and future possibilities in a changing educational and food security landscape, including opportunities for new areas of study, more flexible modes of learning, renewed partnerships, and greater institutional support for experiential education.

II – Origins of the Certificate: Motivations and Motivators

Since its inception in 1995, the CSFS has earned a reputation as an academic hub of research and dissemination on food security. Rising interest in food security courses among Ryerson students in the late 1990s and among members of community organizations led CSFS members to explore offering courses that could lead to a degree. Although the university policies did not allow research centres and institutes to offer a degree, a unique partnership between the School of Nutrition, the Chang School of Continuing Education and the CSFS led to the creation of the Certificate in Food Security. The Office of International Affairs also supported the Certificate's internationalization.

Several factors drove the creation of the new Certificate. The original 2002 proposal expressed clearly the logic for this initiative: "Because the solutions to food security involve so many sectors and people with so many backgrounds, there is a significant need to increase food security 'literacy' across many fields, institutions and workplaces" (Ryerson University, 2002, p. 3). Furthermore, "as the subject matter of food security is both international and interdisciplinary, the Certificate will prepare students for professional practice that has application in Canada and overseas" (Ryerson University, 2002, p. 3). This priority of internationalizing the curriculum required teaching modalities that could reach students worldwide.

The Certificate idea also fit well with Ryerson University's new academic mandate: internationalizing the curriculum, combining new research and teaching opportunities, linking community experience to the academic community, and developing new relationships with international agencies and funders (Ryerson University, 2002, pp. 3-4).

The Food Security Certificate emerged from the foundations of a dynamic food justice environment in Toronto, one of the pioneer cities in anti-hunger activism and political organizing (see Chapter 1 in this volume). Ryerson University was well positioned for remote teaching, having offered distance education since the early 1970s, with some internet-based learning launched as early as the mid-1990s. Its Distance Education Unit launched its first fully internet-based courses in 2000, rapidly becoming "the dominant mode for Ryerson distance courses" (Malinski & MacRae, 2006, p. 38). The university became a leader in the fast-growing online education globally, with an explicitly internationalizing mandate

– distance education grew from less than 800 a year in 2000 to more than 8,000 registrations a year in just three years (NEXUS 2004, p. 2). The fully online Certificate was thus anchored in a university well established in online education by then.

Still, launching the FSC had challenges "because of the complexity of creating a new certificate program, designing a full suite of new courses that didn't previously exist, and constructing the administrative infrastructure to properly support and market the certificate" (Malinski & MacRae, 2006, p. 38). It was these three dimensions that made it especially complex, relative to other online teaching at Ryerson University – and made it particularly innovative on the world stage. Online teaching was relatively new at the time, and the proposal promised an entire accredited program built from scratch, with new instructors, an unfamiliar teaching modality, global outreach, and a focus on new understanding of global food challenges and solutions.

The Certificate's early success was enabled by collaboration among the university's four partnering units, as well as support from individuals well positioned to develop and deliver this new program. Some of the key members who helped establish the Centre for Studies in Food Security also supported putting the Certificate structure and the set of courses that would form the core of the curriculum in place.[1]. Two key actors played central roles in enabling the Certificate in a relatively short period of time: Rod MacRae and Richard Malinski.

In 2000, Rod MacRae was hired as the first academic coordinator of the Food Security Certificate, leading its planning, development and implementation (until stepping down in 2007).[2]. With a background in food and agriculture policy and experience working as a consultant on food security and sustainable agriculture in the 1990s, Rod MacRae also brought experience as the first coordinator of the Toronto Food Policy Council. Richard Malinski had been Ryerson's Chief Librarian in the previous decade, and served as Director of the Distance Education Unit within the Division of Continuing Education. The timing of the CSFS's pursuit of an educational side of its activities was fortuitous. The first coordinator of the world's most prominent food policy council had stepped down just as the Chief Librarian of Ryerson was charged with developing distance education from scattered courses into full programs. MacRae's subject-matter expertise and Malinski's interest in creating innovative online programs enabled the Certificate's relatively fast development and launch.

Once the idea of an online Food Security Certificate as a pedagogical offshoot of the CSFS was established, several steps had to be undertaken before it could be formally approved and development could begin. A team of content experts had to be identified and confirmed as capable of developing and delivering the comprehensive content of the newly recognized concept of 'food security'. Fortunately, content experts with varied disciplinary backgrounds (and domestic and international experience) were already collaborating within the CSFS. This team confirmed the Certificate project's feasibility.

With a focus on urban food security, the Certificate's overarching aim was defined as "increasing the number of change agents to work on food security issues, both domestically and internationally" (Malinski & MacRae, 2006, p. 41). The foundation course launched online in September 2003, and the full set of courses, including electives, was offered by 2006.

III – Pedagogical Evolution and Outcomes

Since its inception, the program's academic home has been the School of Nutrition and, within the School, the Centre for Studies in Food Security. A Curriculum Committee oversees curriculum development and other pedagogical matters,

1. The original faculty members responsible for the stewardship of the Certificate were Jennifer Welsh (Director of the School of Nutrition, and Co-Director of the CSFS), Mustafa Koc (Associate Professor at the Department of Sociology, and Co-Director of the CSFS), and Cecilia Rocha and Fiona Yeudall (Assistant Professors in the School of Nutrition).
2. Reg Noble succeeded Rod MacRae as the FSC Coordinator.

and an external Program Advisory Committee provides "input on the relevance of the program's goals and course content to the wider community it serves" (Ryerson University, 2013, p.29). A pair of instructors developed each of the initial core courses in the Certificate, and subject matter experts developed or redeveloped later courses, with support from Chang School learning specialists. Many of the courses have also been co-taught. This has given students access to even more diverse instructors, as each brings different competences and real-world experience to the courses.

Malinski and MacRae (2006, p. 46) observe:

> The multi-level team approach seems to work very well for Certificate development. While this group has a variety of backgrounds, the members hold complementary, if not similar, visions of the Certificate. [...] There is vibrant discussion and consensus building without a blinkered approach or brow beating. This means that [...] the different skills and abilities of the team members are valued and are seen as contributory.

Along similar lines, the conclusion of the 2013 Certificate program review "demonstrated the value of placing a strong emphasis on the design of the online learning environment," which resulted from "an extraordinary collaborative effort," as attracting and retaining students "requires that they have a rich and rewarding learning experience" (Ryerson University, 2013, p. 35).

The goal of the Certificate's courses is "to provide graduates with a suite of skills and knowledge in food security to add to their current skill set" (Ryerson University, 2013, p. 5). Given the wide variety of student interests, disciplines, and careers, as well as different socio-economic, cultural, and geographic contexts, the program recognizes a range of learning styles and has developed a variety of teaching modalities over time. Flexibility has been important to accommodate this wide range of students, while still ensuring a common framework and foundation necessary to balance that flexibility.

All Certificate courses go through a rigorous design process from conception to presentation. All design work, from creating new courses to making minor revisions to existing ones, involves the Digital Education Strategies (DES) team. The aim is to create a learner-centred, experiential product focused on personal and professional growth (TMU, 2025a). DES also provides professional development for instructors, innovative learning tools, and support for designing and developing creative 'learning objects' (interactive games, question-raising boxes, self-testing, etc.) built into the regular content. A six-stage process with milestones is used for course development and revisions. The course includes modules that embody varied learning objectives, assignments, and purposeful, creative use of technology (TMU, 2025b). All modules must be compliant with the Accessibility for Ontarians with Disabilities Act (AODA). The library provides access to resources and open education resources (OER) to support financial accessibility.

These principles and processes led to the development of a six-course Certificate, in which three courses are required for all students to build a common foundation, and three other courses are electives to accommodate students' diverse interests and objectives.

The three foundational (required) courses are the following:

- Food Security Concepts and Principles
- Food Policy and Programs for Food Security
- Applied Research Methods and Evaluation

Students can then choose three electives from a set of offered courses. Beyond courses already available from different departments at Toronto Metropolitan University (such as Sociology of Food and Eating, Nutrition and Health, and Families and Health), some courses were developed specifically as electives for the Certificate. Among those of significant importance, the following can be listed:

- Urban Food Security
- Community Development and Food Security
- Gender and Food Security
- Indigenous Food Systems in Canada

Among the elective courses, *Selective Topics in Food Security* has allowed students and instructors to explore particular interests. One example was *Urban Food Security Policy and Programs – The Case of Belo Horizonte, Brazil*. Offered a few times over the years, this course gave students the opportunity to learn about the bold and pioneering policies and programs implemented in the city of Belo Horizonte, Brazil. Students interacted virtually and asynchronously for several weeks before travelling to that city and spending an intensive week meeting local actors and visiting projects on the ground. Over 50 people participated in this experience through its many offerings, which attracted students not only from Canada, but also from the United States, Germany, Australia, and Vietnam.

Another important set of electives offered in recent years has been in urban agriculture. In fact, alongside the Food Security Certificate, the IDRC, Ryerson University, and the Netherlands-based Resources Centres for Urban Agriculture and Food Security (RUAF) began a conversation about launching a companion online educational program focused on urban agriculture. They crystallized this concept as an Urban Agriculture Course Series consisting of four courses. Joe Nasr at Ryerson University and Marielle Dubbeling from RUAF developed the detailed structure of the Course Series and most of the courses, under the oversight of Academic Coordinator Rod MacRae.

The partnership between RUAF and the Chang School "enabled the program to gain valuable input and expertise from international practitioners in urban agriculture across the world, and this has resulted in a suite of courses that provide a solid foundation in urban agriculture that will allow students to become practitioners and policy makers in this growing and increasingly important area of food security" (Ryerson University, 2013, p. 6). Food security is prominently featured in the urban agriculture courses, employing the guiding principle of the 5As of the CSFS. The first course in the series was launched in Fall 2007. For nearly two decades, dozens of students took urban agriculture courses, though registrations fluctuated over the years. While the Urban Agriculture program was discontinued in 2025, the courses can still be offered through the Selective Topics elective in the Food Security Certificate.

In its first decade, student registrations and graduations rose dramatically. Registrations in the foundation course, Food Security Concepts and Principles, increased from 14 registrants when first offered in Fall 2003 to under 60 in 2006-07, then to over 140 in 2011-2012 (Ryerson University, 2013, pp. 5-6). The other two core courses regularly had over twenty students since 2008, ranging between 33 and 45 in the early 2010s. Around 2008-2012, many public events related to food security and urban agriculture (notably the international Urban Agriculture Summit in 2012)[3] took place or had a strong connection to Ryerson and the CSFS, leading to increases in student numbers (Ryerson University, 2013, p. 5). Electives stabilized at around 15-20 students per course (Ryerson University, 2013, p. 20). Sixty-six students graduated in the first ten years, while 282 students completed the Certificate between 2019 and 2026 (CSFS, 2026).

About 80 percent of registrations come from continuing education students, many of whom enter the program with prior involvement in community food initiatives or work in a food-related field (Ryerson University, 2013, p. 23-24). The program has attracted many strong students. In one exceptional year (2011), three graduates from the Food Security Certificate were nominated for the Ryerson Gold Medal; one won the award while working in South Africa to help a community address hunger and malnutrition (Ryerson University, 2013, p. 5).

The program has often attracted senior professionals who are working for development agencies such as the UN and USAID (now closed). In 2019, the Chief Food Security Development Officer for USAID and the Chief Food Security Research Officer for USAID joined our program, and both graduated a year later. They found the program so valuable that they commented they would recommend it to their colleagues.

Around four out of ten students taking the foundation course in 2012 – whether undergraduate or post-graduate, whether full-time students or part-time adult learners – indicated that they saw the program in terms of career advancement, as a means to further their professional options and/or complete degrees (Ryerson University, 2013, p. 24). Moreover, many students use the Certificate to transfer course credits to another university or as a 'stepping stone' to a graduate degree in a field relevant to food security (Ryerson University, 2013, p. 10).

Student interaction has been vital to enriching the learning experience:

3. Other events were the launch of the Toronto Food Strategy, the establishment of Toronto Urban Growers (the city's network), the Carrot City exhibit and book launch, and the GrowTO Series of seminars.

> A unique aspect of the program is its delivery online that provides interaction between students on a global scale. Students learn about current real-world situations in food security that would not be available in a classroom in the same way (Ryerson University, 2013, p. 14).

In addition to the impact of the diversity of experiences that is shared among classmates, the outcome of the "shared learning across the internet is the realization of how food connects everyone globally, and actions taken in one place profoundly impact people's food security a world away. Moreover, the program's experiential learning encourages 'learning by doing' through collaborative group work, real-time sessions, case studies, role-playing in a virtual environment, and practical field-based research studies (Ryerson University, 2013).

IV – Main Features of the Certificate

The Certificate in Food Security's success can be traced to a few main features, as described below.

The Interaction Between International Learning and Local Grounding

From its inception, the Certificate emphasized its international orientation as central to its mission. Ryerson's Office of International Affairs was one of four university units that collaborated on the proposal. "Internationalization of the Curriculum" was a major university priority at the time. An international outlook was therefore fundamental to developing and implementing the Certificate. Internationalization was reflected in the global content of the courses and, from early on, in the profiles of instructors and the mix of students (their origins, interests, experiences, and, in many cases, the locations on which they were based).

The program's international dimension was strengthened by the diverse experiences and knowledge instructors brought to the program. All of them had worked internationally for development agencies, both national and international (e.g., UNDP and FAO). This international experience, combined with local experience of food security issues in Canada and North America, created a well-rounded instructional environment that helped students appreciate that food security is both a global and local issue.

At the same time, the program has consistently prioritized grounding students' experience and knowledge in local contexts and engaging with local communities and actors. The importance of experiential learning has grown over the years. As Levkoe et al. (2020) describe, food "more than most other subjects invites students to engage in applied thinking, reflection, and action" and, "as a subject of study, can promote connection despite the distance that defines online learning" (p. 446). While the content remains as global as ever, student profiles have gradually become more locally based over the years. Balancing international and local learning has presented challenges, but it has been essential in the pedagogy and content.

Complementing Placeless Pedagogy with Place-Based Experiential Learning

Another strength of the Certificate has been its ability to combine distance learning and a placeless pedagogical approach with a place-based emphasis on experiential learning. From the start, the team who planned the Food Security Certificate sought to offer it fully online, with the commitment to an international orientation. This commitment, however, comes with challenges. The reliance on knowledge-sharing that is delivered (largely asynchronously) in the absence of a physical classroom and a group of students with whom to interact requires ways to address this limitation. Levkoe et al. (2020) suggest that "universities (along with departments and postsecondary institutions) put

the necessary resources into online education programs. The support at some institutions has made a tremendous difference in the quality of teaching that can be delivered online." (p. 446). This is especially critical when experiential learning, community connections, and place-based understanding of food systems are important for food security.

Overall, the reliance on online teaching necessarily comes with a potential constraint on direct engagement. However, while the challenges of 'placeless pedagogy' are inherent to online offerings, various teaching methods have been used to address them. These include assignments that involve field visits or interviews, independent study, attending seminars, etc. These approaches try to mitigate this "placelessness" somewhat. Levkoe et al. (2020) go further by stating that "the online setting that allows students to be anywhere in the world provides an opportunity for them to connect what they are learning to their everyday experience. [...] Food, as a subject of study, can promote connection despite the distance that defines online learning."

Precarious but Stable Teaching Core

An important challenge for the Certificate has been the tension coming from the structural reality of continuing education (not specifically online education). In general, continuing education instructors in North America work in a parallel world to full-time faculty members, who enjoy a certain level of job security, much higher pay, and a clear process for potential promotion. By contrast, at Ryerson/TMU, as elsewhere in most North American universities, continuing education instructors must repeatedly apply to teach courses they have taught before (even ones they may have developed in the first place). Even program coordinators (including that of the Food Security Certificate) require regular contract renewal. Unlike tenured or tenure-track faculty members, TMU and other universities make no further commitment to continuing education instructors.

Still, instructors' precarious situation has not prevented the team from remaining committed to teaching (or coordinating) in this Certificate. The team of instructors has been largely stable for more than two decades, and only two coordinators have directed the program during that time. Behind this is a commitment to the subject at hand: understanding the conditions of food insecurity and identifying ways to address them – a commitment that students who register for the courses overwhelmingly carry as well. The effectiveness and commitment of the instructors have resulted in a stable Certificate, despite their unstable employment context.

Fruitful Interactions Between Adult Learners and Degree Students

From the beginning, even at the development stage of the Certificate, "the choice of a continuing education approach with its focus on adult, part-time learners was preferred. Focusing on this market of adult learners working in related fields was an extension of our belief that food security work is so multidisciplinary that the most rapid capacity building would come from augmenting knowledge among people already working on related measures" (Malinski & MacRae, 2006, p. 39). This also matched the School of Continuing Education's core mandate.

Nevertheless, the courses developed for the FSC received degree credit and were offered as electives in departments such as Nutrition and Social Work. Over time, more and more undergraduate (mostly full-time) students took Food Security courses. By now, the Certificate is serving two groups at once – and doing so successfully. That mix of adult learners and degree students has expanded the audience and secured the Certificate's future (particularly during cycles when continuing education numbers went down). Food Security courses are rarely cancelled based on insufficient registration.

More importantly perhaps, many degree students have discovered or reinforced an interest in food issues, an interest that lasted beyond an individual course. Many Nutrition students, for example, ended up registering for and completing the Certificate alongside their degree. In particular, the foundation course acts as a gateway into taking other FSC

courses, and ultimately for signing up for the Certificate.[4] Moreover, in-class interaction with adult learners (many of whom bring prior involvement and knowledge of food issues) has raised the overall bar for discussion and participation.

Improving Food Security Literacy and Professional Skills

Another question featured in the orientation of the Food Security Certificate from its inception has been the central purpose of such a Certificate. Right from the start in 2002, the authors affiliated with the CSFS stated their belief that:

> There is a pressing need for education and thoughtful reflection on the issues of food security, and research and practice related to achieving food security. … Because the solutions to food security involve so many sectors and people with so many different backgrounds, there is a significant need to increase food security 'literacy' across many fields, institutions and workplaces (Ryerson University, 2002, p. 3).

This distinction between food literacy and food security literacy is vital to clarify what is central to the learning in this program. By taking half a dozen courses, students would become literate in the principles of food security, its relation to food systems, its components, the key actors and drivers that increase food insecurity and those that mitigate it, the challenges in addressing it, etc.

The rationale was for putting in place a university program that would provide "a major infusion of resources and capacity building … to build solutions" to food insecurity and thus send out into the world 'food-security literate' citizens. Two central purposes for food-security literacy can be discerned: learning to understand food security and become literate in its own right, and becoming food-security literate to provide accreditation in such a literacy, to become employable as a result of this literacy, and even find a long-term path to a career as a food-security literate professional.

A question has hovered over the past couple of decades regarding these two central purposes. From the start, it was clear that food security literacy is central to this Certificate. Less clear has been the extent to which accreditation, employability and a career-long path would be a central purpose of the Certificate. These considerations are central to continuing education in general. However, in reading four key documents of the Certificate (reports from 2002, 2006, 2013 and 2021), accreditation, employability and career did not come through as keystones for the Certificate.

That said, the intersection between taking courses to gain literacy and gaining work does exist. "Many who come to food security start their careers first in somewhat related areas from which they develop their interest in food security work," and some see this education as forming part of their professional development (Malinski & MacRae, 2006, p. 39). Often, some degree students take one of the Food Security courses based on a vague interest in the subject, then become so captivated by what they learn that they register for and complete the full Certificate alongside their degree. Moreover, many students who sign up for the Certificate arrive with a prior personal interest in food security while working in other areas, with an explicit intent to use the Certificate and its accreditation as a stepping stone to a new career in food security. Across these scenarios and others, gaining food security literacy and building professional skills (and even careers) intersect strongly. These reflect the highly varied drivers and paths that have led hundreds of students to sign up for individual courses or the entire Certificate.

The combination of gaining literacy and validated competence in food security is also reflected in the large number of students who have pursued graduate education by building on completing FSC courses or the full Certificate. Each

4. At the Curriculum Committee meeting in September 2025, the Curriculum Committee recognized the value of undergraduate students taking FSC courses that qualify as open electives as a way to bring students into the Certificate program. Expanding accreditation of Food Security courses as open electives in the 2025-2026 academic year has led to the program's highest level of registrations ever.

year, 25 to 30 students ask the Academic Coordinator for recommendations for graduate programs. The Certificate has become a stepping stone to graduate school, and many universities now know of the program and the high quality of its graduates.[5] The variety of graduate programs students can enter is broad because the FSC is very broad, from Public Administration and Law to Community Health, Environmental Planning, and Social Work programs. Many students thus see the Certificate (or Certificate courses) as a valuable addition to their curricula, helping in their career development.

The 2013 review of the Food Security Certificate asserted that no doubt "the certificate program is successfully moving towards its goal of increasing food literacy within civil society and the professional sectors in which graduates from the program find employment. However, the situation with our current food system and its associated challenges … are increasing and so the relevance of the program and need for further strengthening of food literacy remains unabated" (Ryerson University, 2013, p. 33). This states clearly how food security literacy and professional skills intersect and require ongoing learning

Certificate Graduates as Informed Individuals and Change Agents

For more than two decades, the FSC has been providing 'food-security literacy' learning to hundreds of students from across Canada and around the world. This has resulted in more informed individuals, capacity building for existing or new professionals, and paths towards careers related to the wide world of food systems. The team who put together the initial proposal stated their collective hope that this Certificate would help address the lack of sufficient numbers of trained people "in building both individual capacities and networks that will allow for the creation of policies and processes of agency to work toward the goal of food security" (Ryerson University, 2002, p. 6).

Some graduates from the Certificate have pursued careers that are clearly meant to implement positive change. For many others who took part in Food Security courses, these studies and interactions with instructors and other students have fostered internal growth, leading to career and life changes.

V – Future Possibilities

Interest in food security remains strong, gaining increased attention over the couple of decades since the launch of the Certificate. When this program was proposed to the university, it was noted that 730,000 people in Canada relied on food banks in March 2000 – double the numbers from a decade earlier (Ryerson University, 2002, pp. 4-5). Despite pledges by various governments to end hunger, March 2024 figures showed two million people relying on food banks (Food Banks Canada, 2024). When this chapter was written and copyedited, Prime Minister Mark Carney launched Canada's first-ever National Food Security Strategy.[6].

As always, current events continue to shape the Certificate program. At the time of writing in 2026, the world is experiencing escalating trade tensions alongside a growing number of armed conflicts, with rapidly increasing numbers of food-insecure people among those most affected. Nationalism in Canada—once perhaps most visible during major international hockey games—has also intensified, with shoppers paying closer attention to where their food comes from

5. Several graduates have successfully completed the Master's in Human Development and Food Security at Roma Tre University, and then gone on to work internationally. Many Certificate graduates are accepted into the well-known Public Health program at the University of Toronto.
6. See "Prime Minister, Mark Carney, launched Canada's first-ever National Food Security Strategy to build a more affordable and resilient food system in Canada." News release on June 11, 2026. https://www.pm.gc.ca/en/news/news-releases/2026/06/11/prime-minister-carney-launches-national-food-security-strategy

and, in particular, whether it is produced in Canada. Canadians are also showing renewed interest in growing their own food, echoing trends seen during the COVID-19 pandemic (Johnson, 2025; Spring et al., 2022).

When the Certificate was proposed in 2002, it was groundbreaking and unique in many ways. All courses were offered online asynchronously, and competition from programs elsewhere was limited. Now, this delivery format is no longer rare, with different virtual teaching modalities offered to a variety of publics. Many universities and colleges now offer food studies programs.

The designers of the Certificate program saw it as a tool to support community agencies and practitioners in an emerging field (Ryerson University, 2002). From its inception, the combination of online and experiential education provided a unique learning environment. The 2021 program review (Ryerson University, 2021) reiterated the importance of experiential learning and service to the community, highlighting the greater role that is available for the Certificate to play – including the important consideration of helping students build their professional networks. Overall, opportunities to develop greater autonomy in the program through a selection of courses that meet specific interests, independent research/work, and other professional development opportunities that might be available (volunteering; studying abroad…) may enable more adult learners, as well as degree students, to register for the Certificate.

Moreover, a deeper examination of the Certificate's existing strengths, the CSFS, the Chang School, and the university can point to untapped directions. In 2022, Ryerson University was renamed Toronto Metropolitan University to highlight its urban and cosmopolitan identity, and the Certificate has recognized this urban dimension since its inception. The 2002 document stated that "we have drawn upon Ryerson's unique role in urban food security work" to develop the proposal, adding that "Ryerson can offer a unique perspective on food security challenges in the urban environment" (Ryerson University, 2002, p. 7). The program thus included a course on urban food security, complemented over the years by other urban-focused initiatives on campus, from the Urban Agriculture Summit to the TMU Urban Farm, to the Carrot City initiative, and so on (see Chapter 11). While the Urban Agriculture Certificate has been discontinued, plans are underway to introduce other teaching options focused on urban agriculture, supported by the CSFS. Further opportunities exist, including weaving tighter connections between the TMU Urban Farm, the Food Security Certificate, and the strong focus on urban issues already present in the CSFS[7] Other dimensions could be developed further as focal areas that build on existing strengths, including Indigenous food sovereignty, Black food sovereignty, and local-international connections.

While the Food Security Certificate is still thriving, challenges and opportunities have emerged, particularly over the past half-decade. One limitation has been the reliance on the full-semester course mode. Many teaching modalities for food security and food systems now exist, including online ones. Reports from 2002, 2013, and 2021 also identified other modalities for teaching food security (and food sovereignty, food systems, urban food issues, etc.). These include short courses, intensive courses, modules adapted from existing courses, urban field courses, among others (Ryerson University, 2002, p. 12).

In the initial proposal for the Certificate, other learning modes were intended to complement the standard semester-based classes, since the Division of Continuing Education "has experience with many different modes of distance learning." Moreover, since the Certificate is organized in modules, a set of modules "could be pulled out to create a short course on [a] specific subject. In this way, short courses could be designed around both long-distance access and week-long residential sessions" (Ryerson University, 2002, p. 8, 12).

However, these intentions for flexibility have not materialized, despite occasional discussions in that direction. One explanation may be the rigidity commonly found in academic structures, which makes deviations from standard norms (semester-based, three credits, degree credit…) difficult to implement because they fall outside those norms. Another explanation may be tied to the precarity of the instructor body: the Chang School's investment in developing and redeveloping regular courses has not carried over to investing in other learning modes.

The potential for alternative educational modes related to food systems has already emerged in other institutions, and it could still be realized in the future. For example, micro-credentials as short-term, targeted, skills-based learning

7. A course on "Designing the Productive City" already exists in the Department of Architectural Science.

focused on helping learners develop and demonstrate a predefined set of competencies are quickly being adopted by Canadian universities and colleges (Henningsmoen & McGeer, 2024). Another form of course offering could consist of intensive courses that run over a few weeks, or even one packed week. This 'summer school' model has been running in August since 2009, with around 100-150 registrants, organized by the research and training organization AU/Lab and hosted by the Université du Québec à Montréal (UQAM).[8]

Potential partnerships with other universities, as well as key civil society organizations where connections already existed among individuals, have been discussed in the past but were not established or were implemented only once; these possibilities are worth exploring again[9] Similarly, outreach to professional associations (from architects and planners to nutritionists and social workers) can lead to certified continuing education modules or lectures to maintain currency in the respective profession.

On a different note, this chapter repeatedly emphasizes the importance of experiential learning, yet it does not materialize on its own. It cannot be left to the Academic Coordinator or instructors as an extra responsibility that is not even recognized in the contract with the university. The Chang School once provided a staff person to support the development of experiential learning and partnerships to host it, and it was impactful at the time. Still, this service was short-lived – without such consistent support, experiential learning will always be limited and accidental. Reinstating such support, especially if connected with the CSFS, would create new opportunities.

The program also needs greater job stability for instructors to ensure its long-term viability and quality. The instructor group has remained stable mainly because of their commitment to the certificate program's objectives; all are CSFS members, and many originated the program courses. But the precarity of being an instructor, or indeed, a coordinator, does not make for an attractive job opportunity. This is due to having to continually apply to teach for each session (instructors) or rely on the Chang School renewing an annual contract (academic coordinator). This puts the program's future quality at risk. Additionally, current applicants for instructor positions often lack the competencies needed to teach food security effectively. So, the challenge is attracting people with the skills, interest, and drive to maintain program quality, even though instructor positions are precarious.

Overall, the Food Security Certificate has come a long way over two decades, evolving from conversations among a few passionate members of the newly formed Centre for Studies in Food Security into one of the most recognized bases of international education about food systems. This Certificate has received recognition for its accomplishments, including awards from two online education associations, including one "for creating a vibrant experiential online learning environment in which students learn about real-world situations in food security in a manner that is not possible in a classroom."[10] Over time, though, other sources of learning have emerged, different modalities of knowledge transmission now exist, and a variety of pressures are impacting students. Still, the challenges continue, and many opportunities have been created so that Certificate graduates become change agents, as the planners of this pioneer program envisioned at the start of the millennium.

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8. https://ecoleagricultureurbaine.org/
9. For instance, a memorandum of understanding has been signed between TMU and AgroParisTech; it led to several exchanges related to urban food and agriculture issues, but for Certificate graduates to not to any formal pedagogical agreements so far.
10. Awards for pedagogical excellence were given to the Certificate in 2013 by the Canadian Association of University Continuing Education and by the Online Learning Consortium (formerly the Sloan Consortium) - source for the quote above. From Ryerson University 2021, pp. 35-36.

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