

## Raising awareness and advocating change: The work of Nova Scotia food security NGOs

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### Abstract

Although Nova Scotia nongovernmental organizations (NGOs) have been working on local food security for many years, there is limited research that has analyzed their activities and impacts. Employing the Food and Agriculture Organization of the United Nations' (FAO) four dimensions of food security—food availability, food access, food utilization, and food stability—to guide data collection and analysis, we examined the work of nine

Nova Scotia NGOs through document analysis, media analysis, and interviews with NGO representatives. We categorized the findings according to two broad themes of raising community awareness and conducting research/policy advocacy, and two more focused themes of partnerships and funding. We then discussed the rich array of food security “orientations” throughout the province, spanning community food security, household food insecurity, food justice, food sovereignty, and policy work. We found that the FAO's four criteria, based as they are on larger scales (e.g., the national level), could not easily capture the myriad community-level food security work in Nova Scotia. We did note, however, that at the subnational

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Undergraduate theses by Julia Roach and Delaney Keys formed the basis of the Methods and Findings Sections of the manuscript.

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level, indicators point to the continued dominance of the agri-food system in the province. We suggest that the relations forged by the food security NGOs with local universities and civic organizations could be reinvigorated in the post-COVID era with longer-term, joined-up sustainable food policy approaches coupled with institutional mapping of key actors.

### Keywords

Food and Agriculture Organization, FAO, Food Security, Nova Scotia, Media Analysis, University Partnerships, Nongovernmental Organizations, NGOs, Community-based Organizations, CBOs

### Introduction

The past decade has seen the formation of non-governmental organizations (NGOs) intended to strengthen food security in Nova Scotia. On the surface, the existence of food security NGOs in Nova Scotia would appear incongruous with the province's food profile and relatively small family farm profile. Located on Canada's Atlantic seaboard, the province of Nova Scotia, numbering about one million people, has an agricultural profile conducive to a more localized agriculture that includes the dominant supply-managed dairy sector, commercial vegetables, and small fruits (especially apple orchards) among other crops, as well as downstream value-added industries such as cottage wine and craft beer enterprises (Andrée et al., 2016). Anchoring small-town and rural Nova Scotia, and a potential mass market for local produce, is the provincial capital of Halifax, a burgeoning metropolis with about half the province's population and a hub for innovation, industrial estates, Maritime-based hospitals, world-class universities, provincial and federal government offices, as well as home base to the Royal Canadian Navy Atlantic fleet.

If, however, this static picture of a relatively prosperous region of a G7 country is peeled away, a more sobering reality emerges. Local food systems are under stress along all points of the production-distribution-consumption continuum (McLeod-Kilmurray & Chalifour, 2019). Recent census numbers reveal ongoing and accelerating declines. During 2011–2016 there was a 10.9%

drop in census farms and a 10.1% drop in farm area (Statistics Canada, 2016). The shift from local, geographically dispersed grocery stores in Nova Scotia (e.g., co-op groceries) to larger, more concentrated big-box stores, has inhibited both the supply of and access to local, nutritious food, particularly for those living in rural or isolated regions (Activating Change Together for Community Food Security [ACT for CFS], 2015). Furthermore, the bulk of the province's food is imported, with only an estimated 8.4% of Nova Scotia's food dollars in recent years going back to its farmers (Nova Scotia Federation of Agriculture, 2020). At the same time, many fishers and farmers face high production costs and stagnant prices, even while many (urban) households cope with incomes inadequate to purchase a healthy food diet (ACT for CFS, 2015; Andrée et al., 2017).

Inadequate income assistance and minimum-wage jobs have contributed to Nova Scotia having among the highest rates of household food insecurity of Canada's ten provinces, with approximately one in six Nova Scotian households affected (ACT for CFS, 2015; Blair et al., 2015; Food Insecurity Policy Research, 2021; Loopstra, 2018; Newell et al., 2014; Williams et al., 2012). In 2017–2018, approximately 60% of Canadian households whose primary income source was social assistance reported experiencing food insecurity, including Indigenous communities, African Canadians, newcomers, other minorities, and the working poor (Harper et al., 2022). In response, emergency food security programs have been established to combat immediate hunger in poorer neighborhoods, such as through food banks and soup kitchens (Coleman-Jensen et al., 2014; Slater, 2007; Vitiello et al., 2015). Studies of emergency food security programs span all of Canada, from the Northwest Territories (Spring et al., 2020) and British Columbia (MacNair, 2004) to the marginalized neighborhoods of Scarborough in east Toronto (Choosingsh et al., 2010) and eastward to Quebec and Atlantic Canada (Tarasuk et al., 2014).

While emergency food security is a critical sphere of food security work, we sought to understand longer-term strategies to strengthen Nova Scotia's food security profile. Crucial here were NGOs, which have been important actors in

food security in Canada (Chinnakonda & Telford, 2007). Most of this work is relatively new, as are systematic studies on their activities. Fairholm's (1999) survey of NGOs working on urban agriculture and food security noted the paucity of comprehensive data about the scope of their efforts or the long-term effectiveness of their projects. A more recent study has sought to weigh "alternative" (e.g., localism, consumer choice, entrepreneurialism, and self-help) and "oppositional" food system transformation efforts in four Canadian provinces, including Nova Scotia (McInnes et al., 2017). A Nova Scotia case study analyzed the bottlenecks to successful local food system work (Andrée et al., 2016). While these studies discuss to some extent how food security organizations work in the Canadian context, gaps remain in understanding what exactly has been happening with food security work in Nova Scotia.

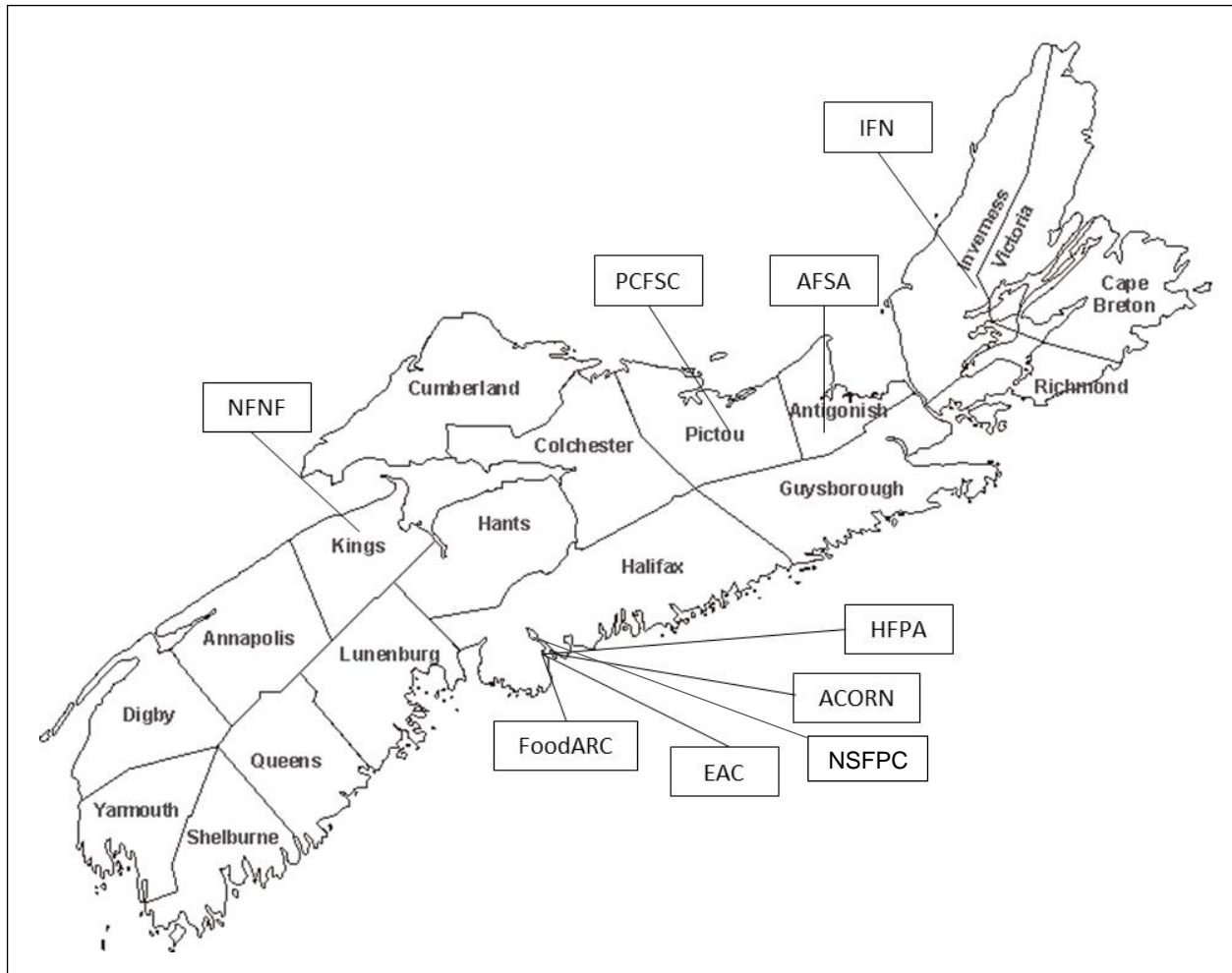
For this study's research design, we applied the FAO definition of food security in order to have a metric by which to get a bird's-eye view of the activities, orientations, and perspectives of myriad organizations working over many years in Nova Scotia's food security space. (For an institutional history of FAO, see Gustafson & Markie, 2009.) The FAO definition, based on the 1996 World Food Summit, is arguably the most recognized and accepted (FAO, 2008; Lambek, 2019). The FAO defines food security as "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy lifestyle" (FAO, 2008; Napoli, 2010/2011, p. 7). The FAO has identified four dimensions to food security: (1) food availability, when enough food is available whether through domestic production or imports from outside countries; (2) food access, which is met when people have sufficient resources to access the food they need in their community; (3) food utilization through safe water, adequate diet, sanitation, and health care; and (4) food stability, where people have access to adequate food regardless of crises (such as environmental or economic disruptions) or cyclical events (such as changing seasons) over the longer term (FAO, 2008). The four dimensions guided the development of the interview questions, of codes

for document and media analysis, and some preliminary analysis. However, as we detail in the Discussion, although the findings revealed multiple types of food security work undertaken by the case study NGOs in the province, the four FAO dimensions had only limited applicability to NGO orientation and action.

## Methods

The main work, completed between 2018 and 2019, undertook document and media analyses as well as key informant interviews with NGO representatives. Nine organizations (see Figure 1) with a focus on strengthening local food security or access to food were identified through internet searches as well as through one of the author's (GC) knowledge of local organizations. Although it is impossible to be certain that all relevant organizations were found, it seems unlikely that any were omitted, as no others were mentioned in the more than 250 news articles reviewed for the research or in the interviews with NGO representatives. The identified organizations represented different areas of the province as well as different scales of activity, from policy-driven entities at the provincial level (one organization), to Halifax-headquartered entities working across Nova Scotia (four organizations), to county-level groups working locally on food related issues (four organizations). Initially, we had intended that this research be conducted solely through analysis of documents found on each organization's website with the goal of describing and analyzing the types of activities the organization had undertaken (GC, DK). We assessed the NGO documents and websites according to drivers that involved visioning, concerns, and actions in relation to the FAO definition and to community food security indicators such as access to local food and community self-reliance. However, we found the organizations' websites were often out of date and contained limited information about their activities, thus making it very difficult to determine their level of activity and achievements. As a result, we felt that a document analysis alone was insufficient to get a picture of the work of Nova Scotia food security NGOs. Therefore, we extended into a second phase of the research so as to expand the quantity and quality of

**Figure 1. Locations of the Nongovernmental Organizations (NGOs) in Nova Scotia**



information for each organization.

For phase two, one of the authors (JR) undertook a media analysis, examining Canadian newspapers in order to better describe and assess activities undertaken by these nine organizations. Each organization was searched by entering its name as a single search term into Eureka, a searchable database supporting academic research that consists primarily of newspapers.<sup>1</sup> The search was limited to Canadian media sources published in English between 2008 and 2018. Articles were retained if they focused on activities related to local food security work in Nova Scotia. Two authors (JR, SD) reviewed a total of 256 relevant articles to extract and describe the activities engaged in by each organiza-

tion. Based on the articles, eight types of activities were identified and each was assigned its own category (see Table 1). We then reread and summarized the activities of each organization and coded the summarized activities using the eight categories, with some activities falling into more than one category. Although we gleaned much information through media analysis, there were still gaps in this information, given that some activities undertaken may not have made it into media accounts due to not being deemed newsworthy, or, if in media, details may have been omitted. As a consequence of this potential gap, we added a third research phase.

Prior to beginning phase three, we received ethics approval from the Dalhousie University

<sup>1</sup> <http://eureka.cc/en/academic-library>

**Table 1. Types of Activities of NGOs Engaged in Local Food Systems Work in Nova Scotia**

Organization *	Types of Activities							
	Voiced an opinion/ Raised awareness	Published a report	Conducted research	Organized public events	Involved with community projects	Associated with other organizations	Affected policy change	Research/ opinions referenced by others
<p><b>Antigonish Food Security Association [AFSA] (7)</b>                      Formed in 2009, a network of individuals, groups, and organizations engaging with the Antigonish community to focus on local food supply, institutional purchasing, food safety requirements, farm labor supply, and establishing a food hub in downtown Antigonish.  <a href="https://www.facebook.com/AntigonishFSC/">https://www.facebook.com/AntigonishFSC/</a></p>	✓	✓	✓	✓		✓	✓	
<p><b>Association of Community Organizations for Reform Now [ACORN Canada] (21)</b>                      Formed in 2004 (first Nova Scotia chapter, 2011), a national organization that works across Canada to help low- to moderate-income communities address their financial needs. The ACORN Nova Scotia office is in Halifax.  <a href="https://acorncanada.org/locations/nova-scotia-acorn/">https://acorncanada.org/locations/nova-scotia-acorn/</a></p>	✓	✓	✓	✓		✓		
<p><b>Ecology Action Centre [EAC] (53)</b>                      Formed in 1971, an environmental NGO based in Halifax that works to effect change on critical environmental issues through building awareness, community development, and policy advocacy. The EAC stands out from the other organizations in that food systems work is just one of its several foci. The EAC is also bigger, older, and more complex than other Nova Scotia NGOs, with deep-rooted connections in Nova Scotia government bodies and communities. <a href="https://ecologyaction.ca/">https://ecologyaction.ca/</a></p>	✓	✓	✓	✓	✓	✓	✓	✓
<p><b>Food Action Research Centre [FoodARC] (26)</b>                      Formed in 2012 and based at Mount Saint Vincent University, Halifax, conducts participatory community action-research to build food security in Nova Scotia through addressing both community and household food insecurity. <a href="https://foodarc.ca/">https://foodarc.ca/</a></p>	✓	✓	✓	✓		✓		✓
<p><b>Halifax Food Policy Alliance [HFPA] (8)</b>                      Formed in 2013, a partnership of individuals and organizations sharing a vision of a Halifax where no one is hungry and that is sustained by local producers. <a href="https://halifaxfoodpolicy.wordpress.com/">https://halifaxfoodpolicy.wordpress.com/</a></p>		✓	✓	✓		✓		✓
<p><b>Island Food Network [IFN] (17)</b>                      Formed in 2016, works to connect stakeholders of the Cape Breton food supply community across sectors and in training, outreach, and some lobbying at the municipal level. <a href="https://islandfoodnetwork.ca/">https://islandfoodnetwork.ca/</a></p>	✓	✓	✓	✓	✓	✓		

*continued*

Table, continued

Organization	Types of Activities							
	Voiced an opinion/ Raised awareness	Published a report	Conducted research	Organized public events	Involved with community projects	Associated with other organizations	Affected policy change	Research/opinions referenced by others
<b>No Farms No Food [NFNF] (101)</b> Formed in 2010, a county-level volunteer-based organization in the Municipality of the County of Kings aimed at protecting farmland from non-agricultural development through lobbying and community mobilization. <a href="https://www.facebook.com/people/NF2-No-Farms-No-Food/100066584233103/">https://www.facebook.com/people/NF2-No-Farms-No-Food/100066584233103/</a>	✓			✓	✓	✓	✓	
<b>Nova Scotia Food Policy Council [NSFPC] (17)</b> Formed in 2010 as a pan-Nova Scotia entity to shift Nova Scotia provincial food expenditures to healthier, locally grown food. The organization is no longer active. <a href="https://nsfoodpolicy.wordpress.com/">https://nsfoodpolicy.wordpress.com/</a>				✓				
<b>Pictou County Food Security Coalition [PCFSC] (6)</b> Formed in 2006, works to increase food security in Pictou County through community partnerships, research, and capacity building. <a href="https://pictoucountyfoodsecurity-blog.tumblr.com/">https://pictoucountyfoodsecurity-blog.tumblr.com/</a>			✓	✓		✓		

\* Numbers in parentheses denote the number of newspaper articles found related to local food security work.

Research Ethics Board. We then contacted eight of the nine organizations for interview requests and followed up twice with organizations that did not respond to the initial request. The Association of Community Organizations for Reform Now (ACORN) Canada was not included because the document and media analyses indicated that ACORN Canada did not participate in activities directly related to local food security work, but rather advocated for higher minimum wages and family income. Representatives from five organizations—No Farms No Food (NFNF), the Ecology Action Centre (EAC), the Halifax Food Policy Alliance (HFPA), the Island Food Network (IFN), and the Antigonish Food Security Association (AFSA)—agreed to be interviewed within the research time frame. No Farms No Food requested two separate interviews, and we conducted one interview with a person who represented both the Ecology Action Centre and the Halifax Food Policy Alliance. One author (JR) conducted five phone interviews between February 26 and April

26, 2019. These semi-structured interviews lasted 30–60 minutes and were audio-recorded. Interview topics were guided by elements that composed the FAO definition of food security and included the following categories: activities undertaken, partnerships, perceived impacts, and barriers to success (see the interview guide in the Appendix). The recorded interviews were transcribed by one of the authors (JR), and to help ensure trustworthiness (Lincoln & Guba, 1985), the transcripts were returned to interviewees to be reviewed for accuracy and to ensure that the interviewees were comfortable with any information that might be published.

Thematic analysis of the interviews began with categorizing the activities for each organization using the same eight categories as employed for the media analysis. We (GC, JR) then read the interview transcripts multiple times to determine commonalities across the organizations' activities. Two main themes (raising community awareness, research/policy advocacy) and two minor themes (partnerships, funding) emerged that characterized

the work of the NGOs. We next reviewed and summarized all information from the document analysis, media analysis, and interviews according to each of the four identified themes in order to provide a comprehensive descriptive analysis of the activities performed by the NGOs.

## Findings

We organized our findings based on the two broad emergent themes of raising community awareness and conducting research/policy advocacy, which captured the majority of activities undertaken by the NGOs, and, more importantly, portrayed how these organizations represented themselves via their websites, reports, and interviews as well as newspaper articles. However, before discussing these two major themes, we first want to note two important elements that seem to have impacted all organizations: working together in partnerships and the challenges of funding.

“Partnerships” was a theme that touched on all organizations. FoodARC and the Ecology Action Centre, in particular, were found to have many partnerships, including the other smaller county-level organizations. One of the most important aspects of the Ecology Action Centre’s work involved facilitating common activities with the Island Food Network and the Halifax Food Policy Alliance, including the development of food charters (EAC/HFPA Interview). The Halifax Food Policy Alliance’s partner organizations included the Ecology Action Centre, FoodARC, Feed Nova Scotia, which coordinates food banks in the province (Feed NS, n.d.), Capital Health, Community Society to End Poverty, United Way, Halifax Public Libraries, Dartmouth Family Centre, the Halifax Regional Municipality (HRM), the Nova Scotia Health Authority, and Dalhousie University’s Schulich School of Law (Blair et al., 2015; Halifax Food Policy Alliance, 2023). Among the county-level organizations’ extensive partnerships were the Island Food Network’s work with Cape Breton University, Cape Breton Public Health, the Nova Scotia Federation of Agriculture (NSFA), the Glace Bay Food Bank, and the Cape Breton Food Hub, a multistakeholder cooperative. The Antigonish Food Security Association partnered with the Antigonish Poverty Reduction Coalition, VOICES

Antigonish, and the Lochaber Growers cooperative on community gardens, locally, as well as with Food Secure Canada, provincially. The Pictou County Food Security Coalition partnered with the Municipality of the County of Pictou to connect local farmers to consumers through an online database, as well as with FoodARC and the Pictou Regional Development Commission.

“Funding,” mentioned often in interviews, was a serious barrier to the furtherance of these organizations’ mandates, especially for the NGOs based in rural counties. In the case of No Farms No Food, financial issues hampered the agricultural farmland campaign, particularly for funding for gas money and printing campaign items (NFNF Interviews #1 and #2). The Antigonish Food Security Association’s food hub was not operationalized due to lack of funding and other competing priorities (AFSA Interview). No Farms No Food and the Antigonish Food Security Association interviewees both highlighted the reality of volunteer burnout as well. Intraprovincially, some Island Food Network members reportedly perceived a provincial government bias in the allocation of funds toward Halifax over Cape Breton, with the view expressed that getting funding was “next to impossible” (IFN Interview). Studies elsewhere have also described the disruption caused by funding irregularities, together with donor mandates tied to concrete projects, short-term contracts, private donations, and even political agendas, all of which take up administrative time that is not spent advancing local food security (Fairholm, 1999; Wakefield et al., 2012).

## *Activities Related to Raising Community Awareness*

Rising food prices, food scares, food shortages, food safety, environmental degradation, and other concerns all hint that there may be issues connected to feeding North Americans through a globalized food system. Activities associated with voicing an opinion, organizing public events, and involvement with community projects primarily entailed trying to raise citizen awareness about local food security and connect how food concerns are related to the globalized food system. Simply voicing an opinion related to food security and local-

ized food systems was the easiest form of raising awareness, but reaching a wide audience often proved challenging. This challenge could be seen, for example, by the relatively small number of times over the course of a decade that each organization was even mentioned in Canadian newspapers (Table 1). One notable exception was the No Farms No Food campaign to block the rezoning of prime agricultural farmland in the Municipality of the County of Kings, in the Annapolis Valley, which involved sustained community mobilization in the province.

The Ecology Action Centre and Island Food Network in Cape Breton were the only other NGOs able to appear in, on the average, more than five articles per year. Taken collectively, however, a different story emerges with the nine NGOs able to achieve a newspaper appearance about twice a month, mainly in Nova Scotia newspapers. These articles demonstrated each organization promoting similar messages involving the importance of different aspects of a local, secure food system, messages that undoubtedly would have reached thousands of Nova Scotians.

Many of the NGOs co-hosted events in their communities. Prominently, the Ecology Action Centre networked with the Cumberland Food Action Network, the Halifax Food Policy Alliance, and the now-defunct Nova Scotia Food Security Network (McInnis et al., 2017), to host the 2<sup>nd</sup> annual Nova Scotia Food Security event in Debert in 2008 (Cobb et al., 2017; Macintyre, 2008). The Ecology Action Centre also partnered with the Halifax Regional Municipality, the Nova Scotia Health Authority, and Partners for Care to open the Mobile Food Market in May 2016 to bring healthy food to food deserts such as Spryfield, Fairview, and Dartmouth, where many African Canadian communities reside, as well as to seniors, single-parent families, and new Canadians (*The Chronicle Herald*, 2016; *Truro Daily News*, 2017). FoodARC and the Halifax Food Policy Alliance also did outreach work on urban agriculture, food deserts, and community and school gardens (Carlsson et al., 2016). Many thousands of others, including Acadians, Indigenous communities, immigrant service association, and family resource centers, were also reached through garden literacy

training, community gardens, school gardens, food preservation workshops, and policy training (Fitzpatrick, 2009; Noseworthy et al., 2011; Wagstaff, 2018).

At the county level, the Antigonish Food Security Association initiated a community kitchen in the Antigonish farmers market and a food box program for low-income households, as well as organizing public events like “Seedy Saturday” (for seed exchange and gardening advice). The Pictou County Food Security Coalition CSA (community supported agriculture) local-food box program and a community food-buying club aimed to connect low-income households with local farmers (Cobb et al., 2017). The Cape Breton-based Island Food Network engaged the local community with its “Getting Our Hands Dirty” and “Upskilling” events to strengthen cooking skills in the community, and created an “asset map” featuring, among others, processors, institutions, rentable kitchens, community gardens, and farmers markets (*Cape Breton Post*, 2017; IFN Interview). The Island Food Network–sponsored events allowed farmers to step away from busy schedules whereas routinely they would just “cross paths at the market, but never have a chance to connect” (*Cape Breton Post*, 2018, p. A6). The Island Food Network also worked on compiling the Strategic Action Plan for Cape Breton that involved local municipal councils, Mi’kmaq bands, and Cape Breton University (Jala, 2019; *The Reporter*, 2019; Sullivan, 2018).

All the interviewees were able to speak as to how their organizations’ activities translated to raising public awareness. Following the completion of Ecology Action Centre–led projects in food and garden literacy, the majority of participants said their nutritional and gardening skills had increased (Cobb et al., 2017). The Ecology Action Centre also published reports and hosted events and workshops, and “understand[s] how to translate issues that they’re experiencing on the ground into policy change” (EAC/HFPA Interview). Co-author of the Halifax Food Policy Alliance’s *Food Counts*, Valerie Blair, stated that “people are coming together, starting to look at food in a different way ... and this report is one of the contributions to that so people can better understand the system” (Spurr, 2015, p. A3). Similarly, the Antigonish



Food Security Association reported greater use of gardens at schools and nursing homes, and rallied the town council behind the local farmers market (AFSA Interview). For the Island Food Network, awareness raising was “really important in helping people understand just the massive scope that food has when it comes to community development, community [and individual] health and wellbeing” (IFN Interview).

The No Food No Farm 2010 campaign to stop the rezoning of 380 acres of prime farmland in Greenwich, Nova Scotia, in the Municipality of the County of Kings likely “made people aware of the significance of farmland and the need to protect it” (NFNF Interview #1). Another No Farm No Food interviewee stated that her sister in Alaska heard her speak about the campaign on the Canadian Broadcasting Corporation (CBC) news, indicating wide public airing of the farmland protection issue across North America. The interviewee also noted the greater appreciation locally that Municipality of the County of Kings councilors have received about farmland protection; some Greenwich farmers even planned to transition their farms into agro-tourism enterprises (NFNF Interview #2). The publication of more than 100 news stories about the No Farm No Foods campaign indicated a significant penetration into the public consciousness.

### ***Activities Related to Conducting Research and Policy Advocacy***

Research output shone a critical light on food security work in Nova Scotia, as FoodARC, the Ecology Action Centre, the Halifax Food Policy Alliance, and the Antigonish Food Security Association’s studies have certain research commonalities. For example, these organizations have called for increased research and continuing partnerships. However, these formalized reports (see references) often did not give specific recommendations or report on research impacts. It is not clear whether there were capacity issues around lack of follow-up, insufficient funding, member burn-out, or lack of frameworks for determining measures of progress. Only the report *Our Food Project* by the Ecology Action Centre discussed actions they had employed to impact food insecurity

(Cobb et al., 2017). Another important report, FoodARC’s *Activating Change Together for Community Food Security* (ACT for CFS, 2015), detailed the challenges facing local food security, including food deserts, living wages, scale-friendly regulations, and weak linkages among the fisheries, agriculture, and public health sectors. Media stories also showcased FoodARC’s ACT for CFS (2015) report (e.g., Deschene, 2014a, 2014b). The Halifax Food Policy Alliance’s *Food Counts* report echoed many of the challenges to local food security indicated in the ACT for CFS report (2015) and, more positively, noted the growing footprint of farmers markets, greenhouses, and community gardens in the Halifax Regional Municipality (HRM) (Blair et al., 2015). *Food Counts* also urged the HRM to commit to measures to protect farmland and to promote urban agriculture and adopt a municipal food charter (HFPA, 2014). A report by the Ecology Action Centre and the Nova Scotia Federation of Agriculture charted the vast global distances food travels before reaching consumers’ plates and was frequently cited in food movement circles and media in the province (Benjamin, 2010; Scott & MacLeod, 2010). The Antigonish Food Security Association report *Community Food Assessment for Northeastern Nova Scotia* profiled the area’s food production base, the community demand for local food, and the challenges of connecting consumers with producers (AFSA, 2013), although this report did not connect the local food distribution system to the issue of farmland loss in the county.

Four of the organizations did affect policy at municipal and/or provincial levels of government, to some limited extent, often using research and/or reports that they generated. For example, the Ecology Action Centre engaged with municipal politicians “to share provincial and national priorities around food” (EAC/HFPA Interview). The Halifax Food Policy Alliance sought to create a Halifax-wide strategic Food Action Plan that would “offer a framework of policies and actions that can, over a series of five to ten years, bring us closer in the Halifax region to where we need to be in terms of a more integrated ... sustainable, healthy, just food system” (EAC/HFPA Interview). The Halifax-based NGOs also called for farmland protection in *Food Counts* (HFPA, 2014).

The Island Food Network's work included food issue "backgrounders" presented to council members in Cape Breton, some of whom found the results "startling" (IFN interview). Its lobbying efforts galvanized a councilor from the Municipality of the County of Victoria to attend the Island Food Network Food Policy Working Group meeting (IFN Interview). As further evidence of municipal impact, another councilor worked with Island Food Network members to launch a Cape Breton-based Mobile Food Market pilot, modeled after the Ecology Action Centre's successful Mobile Food Market in the Halifax Regional Municipality (IFN Interview). Additionally, in February 2019, the Island Food Network presented its *Shared Food Vision* to the Municipality of the County of Inverness, with the recommendation that the council delegate a liaison to the Island Food Network (*The Reporter*, 2019).

The most noteworthy policy impact from our case study was the No Farm No Food's well-run farmland campaign, which mobilized enough opposition that the Nova Scotia government overruled the local municipality and rejected the rezoning application to develop agricultural land as per the Municipal Government Act of Nova Scotia that was invoked to overrule the application (*The Advertiser*, 2010; Keddy, 2010; Starratt, 2012). Social movement justice work included FoodARC co-hosting a major networking event in November 2014 with Food Secure Canada's 8<sup>th</sup> National Assembly *Waves of Change: Sustainable Food for All*, attended by over 450 people who included well-known luminaries such as the Indian scholar-activist Vandana Shiva.

Our case study NGOs also included one food policy council, the Nova Scotia Food Policy Council; one of the authors (GC) attended the founding meeting in Truro. A food policy council is a "voluntary body composed of stakeholders from the food systems as a whole, whose main task is to examine the functioning of a food system, and to provide ideas, means, and recommendations on how to improve it" (Dufresne, 2019, p. 366). Successful food policy councils are both autonomous of governments while also effective in promoting more inclusive social, economic, and environmental policy with local and regional governments

(Gupta et al., 2018). The Nova Scotia Food Policy Council's core focus included efforts to shift provincial policy from imports and toward healthier and more locally grown food. We learned, however, that the council had ceased activities in 2014 (personal communication, former NSFPC board member). While the reasons for the Nova Scotia Food Policy Council's demise are unclear, its absence removed a pressure point on the provincial government, including its earlier campaigns to lobby the Nova Scotia government to create a Department of Food Security. The Halifax Food Policy Alliance sought to fill the policy gap by engaging primarily with the Halifax Regional Municipality and the private sector (EAC interview; HFPA interview).

At the federal level, policy work was far less common, a finding consistent with the research of McInnis et al. (2017). An exception was the Ecology Action Centre's "Eat Think Vote" campaign during the 2015 federal election, which resulted in a 2018 food policy framework, *What We Heard: Consultations on a Food Policy in Canada*, mandating improvements to the affordability, accessibility, and health and safety of the food system (EAC interview; Government of Canada, 2018). Whether the "Eat Think Vote" initiative was incorporated into local food security work in Nova Scotia is not clear.

## Discussion

Before considering the findings, a couple of caveats are in order. First, only NGOs that had a primary focus on strengthening local food security or access to food were selected for this study, which likely excluded from the study smaller (one-off) initiatives or larger initiatives not directly related to food security. For example, the Confederacy of Mainland Mi'kmaq (CMM) conducts conservation initiatives protecting watersheds and fisheries (CMM, n.d.). Although undoubtedly important work that could warrant further investigation, these conservation efforts were not identified as directly related to food security through any of the three sets of sources used in this study nor on the CMM website itself. Second, study results were largely based on self-reporting. Using websites, news stories, and interviews with organization members

meant that this research was examining activities primarily through the lenses of the organizations conducting these activities.

The findings revealed that NGO food security work reflected numerous orientations and values regarding food system change, as well as different levels of citizen and state commitments (Friendly, 2008; Koc & MacRae, 2001; Lambek, 2019). In fact, many NGOs did not define themselves explicitly in terms of a particular food security orientation, or they consciously or otherwise worked with several concepts, values, and scales at any given time, which were sometimes coordinated but often not. Nevertheless, from our initial food studies literature review, we identified five orientations that spoke to tendencies in the work of the case study NGOs (Dufresne, 2019; Lambek, 2019). These orientations were community food security, household food insecurity, food justice, food sovereignty, and public policy. Based on the eight actions in Table 1, we next discuss the type of concrete activities that generally followed from each orientation.

The most common orientation was community food security (CFS), a “situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (Hamm & Bellows, 2003, p. 37). CFS works to improve whole food systems—networks of food production, processing and packaging, distribution and retail, and consumption—so that culturally appropriate food is equally accessible to all (Hamm & Bellows, 2003; Slater, 2007; Tendall et al., 2015). Prominent examples were FoodArc, the Halifax Food Policy Alliance, and the county-level NGOs’ work on local food charters, community gardens, food skills training, food box programs, farmers markets, community kitchens, and forging farmer-fisher-consumer linkages. Core activities centered on organizing public events (e.g., the Island Food Network upskilling workshops), partnering with other organizations, engaging in community projects such as gardening training, food preservation workshops, food box programs (e.g., Ecology Action Centre), lobbying local governments (e.g., Island Food Network), publishing reports (e.g.,

ACT for CFS, the Antigonish Food Security Association’s food assessment report), and, to a lesser extent, researching and voicing opinions (the Ecology Action Centre reports).

The Ecology Action Centre, Halifax Food Policy Alliance, FoodArc, and Antigonish Food Security Association, among others, also worked on household food insecurity, a second orientation, defined by the Canadian Community Health Survey as the “inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so” (CCHS, 2018, para. 1). Household food insecurity is frequently connected to being able to afford adequate food (Government of Canada, 2022). The NGOs sought to tackle household food insecurity for low-income households through community projects such as promoting farmers markets, fresh food initiatives, community gardens and greenhouses, and mobile food markets (e.g., Ecology Action Centre).

A third orientation, food justice work, addresses the structural inequalities on the production-distribution-consumption continuum by seeking to achieve “food security from below” (Dufresne, 2019, p. 363). The Halifax Food Policy Alliance’s medium-term goal of bringing the Halifax Regional Municipality closer to a more integrated, sustainable, and just food system (e.g., a food charter), as well as FoodARC’s call for a provincial living wage (ACT for CFS, 2015), could be construed as a food justice orientation. Key food justice actions included organizing events (e.g., with Food Security Canada) and partnering with other organizations. Publishing reports was also important: the Halifax Food Policy Alliance food justice report called for the Halifax Regional Municipality to promote urban agriculture and protect farmland.

A fourth orientation, food sovereignty, is defined by La Via Campesina as “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” (Food Secure Canada, 2020, para. 1). This concept has been employed differently, with some scholars emphasizing societal-generated change, as opposed to

policy reforms focused on influencing government decision-making (see Andrée et al., 2011). FoodArc and the Ecology Action Centre referred to food sovereignty in published reports, the latter defining it as the right of people to determine their food system (EAC/HFPA Interview). Similarly, during the Nova Scotia Food Policy Council's formative period there was discussion about how to shift Nova Scotia food expenditures from unhealthy food imports to "more healthy, locally-grown food" (*The Chronicle Herald*, 2012, p. A11). Practical actions of organizing public events, such as the Antigonish Food Security Association's "Seedy Saturday," might align with food sovereignty principles at a local scale. Members of both the Antigonish Food Security Association and No Farms No Foods also informally voiced support for broader food sovereignty processes, showing a willingness to move beyond localized or defensive actions such as farmland protection.

Policy work, the fifth orientation, seeks to influence government decision-making with the intent of producing specific decisions. In our study, policy actions were directed primarily at the municipal level, such as efforts to establish food charters and demands for regulatory support to farmers markets and urban gardens, as well as calls for greater interagency cooperation and the allocation of municipal staff hours to local food systems work. Public events were also organized, often in association with other NGOs, such as the Island Food Network and the Ecology Action Centre. No Farms No Food affected policy change by raising public awareness about farmland protection through radio messages. The municipal level has, in fact, been depicted in the literature as more accessible to shifting food priorities (McInnis et al., 2017, p. 802). Our findings were more nuanced, as even municipalities committed to sustainable food procurement policies and other initiatives—and not all were—must face the forces unleashed by "free trade" agreements, being constitutional creations of the provinces. Our exemplar policy success, No Farms No Food, itself struggles to "hold the line" (NFNF interview) against the short-sighted chipping away of farmland for new residential development as permitted by the Municipal County of Kings' recent Municipal Planning Strategy

(Starratt, 2020). And across other Nova Scotia rural municipalities, farmland is generally in a precarious state (Cameron & Connell, 2021). On balance, the orientations of the NGOs tend toward striving to shift patterns of personal consumption rather than engaging in political action around food security (Johnston & MacKendrick, 2015).

Our use of the FAO definition and dimensions of food security ran up against certain limitations, given that the definition is generally aimed at high-level national and international goals and metrics, and hence could not capture the dynamics of local neighborhood food work and emergent solidarities. For example, the community gardens dotted across the Halifax Regional Municipality built environment may have led to real community empowerment and greater household food security, such as through better food utilization, but would have been invisible to the more static FAO definition. Or, had triangulation been conducted with Halifax Regional Municipality councilors or staff, for example, there may have been evidence of some (limited) local policy impacts. It is possible that our use of the FAO definition illuminates academic identification of organizational possibilities in isolation from the realities that activists face in getting people to a better place with food (Levkoe et al., 2023).

At the subnational level, however, one could argue that there have been no discernable changes across the four FAO criteria in Nova Scotia. Even from the viewpoint of the organizations themselves, the greater availability of domestic food production remains a gap. The reality is that Nova Scotia's food system remains largely centered on mass consumption of imported food, investor-owned firm-led growth, globally controlled food distribution networks, and ever larger farming systems, backed by federal-provincial policy frameworks (Andrée et al., 2016; McLeod-Kilmurray & Chalifour, 2019). At the federal level, a 2019 national food policy calling for a "healthier and more sustainable food system" (Agriculture and Agri-Food Canada, 2019, p. 3)—and provincial "buy local" campaigns—so far have not been able to reverse these structural trends and class configurations. Nevertheless, calls have intensified demanding that governments seriously support

family farms, sustainable agriculture, healthier living, animal welfare, and local and affordable healthy food (Agriculture and Agri-Food Canada, 2019; Dufresne, 2019; Lambek, 2019; McLeod-Kilmurray & Chalifour, 2019). Below, we sketch out a strengthened and triangulated research-action framework for employing the FAO criteria in a renewed Nova Scotia transition scenario, as one among other possible frameworks for place-based food system change.

What, then, should the next steps be for a research-action agenda aimed at strengthening Nova Scotia food security? It is our belief that a series of modest steps could begin the shift to a different sustainable food system by challenging “locked-in” government agri-food policy through what have been termed “joined-up sustainable food policies” (IPES-Food, 2016). An important first step would be to move beyond short-term socio-economic processes and impacts and toward longer-term objective-oriented research-action indicators (Eckman, 1996).

Evident throughout the findings, and critical to a research-action approach, was the role played by Nova Scotia’s higher education institutions in participatory research design, knowledge mobilization, and community partnerships. Most of the more dynamic NGOs in the study were in close proximity to Nova Scotia universities, from Halifax-based organizations such as FoodArc (Mount Saint Vincent University) to county-level entities such as No Farm No Foods (Acadia University), the Antigonish Food Security Association (Saint Francis Xavier University), and the Island Food Network (Cape Breton University). Refocusing NGO-university partnerships could offer longer-term revisioning scenarios, in which the FAO definition could still be useful as a starting point if triangulated with other methods. A recent Health Canada Report has done just that, utilizing the four FAO dimensions to pinpoint the threats posed by climate change to Canada’s food system and the need, among other measures, to reduce poverty, develop urban agriculture, repair the hunting routes of Indigenous peoples, and strengthen food safety (Harper et al., 2022). Furthermore, the FAO (2018) concept of sustainability—“food security and nutrition for all in such a way that the economic, social and envi-

ronmental bases to generate food security and nutrition for future generations are not compromised” (p. 1)—could help frame joined-up sustainable food policies. Napoli’s breakdown of the four FAO dimensions to measure broad-based food system transformation is promising: food availability (e.g., arable land, food production index, permanent cropland); food access (e.g., the consumer price index, GDP per capita); food utilization (e.g., percentage of undernourishment, cereal waste); and food stability (e.g., import dependency ratio, food production index) (Napoli, 2010/2011). For example, small-scale pre-industrial farming is still within living memory of some older Nova Scotians, which, in the multiple forms revealed in our findings, could offer local-scale possibilities toward food system renewal, an asset that many other regions lack. Indigenous food practices may offer another potential ecological pillar for food system change through cross-cultural coalitions (Morrison, 2011). FoodArc’s linkages with Mi’kmaq First Nations around traditional harvesting practices on mainland Nova Scotia and Island Food Network’s outreach to Mi’kmaq communities on Cape Breton Island may offer glimpses of an eventual cultural shift among mainstream communities toward Indigenous worldviews.

Our study further revealed the critical relationship between NGOs as service providers and community-based organizations (CBOs) as self-help entities (Carroll, 1992). The growing emphasis on the social economy, including nonprofits, cooperatives, and community initiatives, could enable producers, distributors, and citizens to take some control back over the agri-food system (McInnis et al., 2017). This potential was reflected in our findings. Scattered over the Nova Scotia countryside were CBOs grounded in civic agriculture (localized agriculture and smaller scales of economy), alternative agriculture (food cooperatives, fair trade, organic practice), new agriculture (new niche sectors and family farm renewal), and Indigenous food systems (Lambek, 2019; McLeod & Chalifour, 2019). However, these diverse CBO forms do not necessarily signify a broad and cohesive food movement. Some NGOs and CBOs may value modest reforms to the agri-food system, while others may wish to transform it completely




(Levkoe et al., 2023). This tension was also evident in our findings and remains a challenge for systematically strengthening food security work in Nova Scotia in its varied dimensions.

Another concept that could aid in charting longer-term planning and joined-up sustainable food initiatives is known as institutional mapping (Fowler, 1996). Employed in post-Soviet and emergent-nations contexts from earlier periods and geographies, institutional mapping involves identifying scales (local, national), spheres of action (civil society-state), and actors both for and against a desired transition. Here, engagement with both government and civil society is equally crucial and mutually reinforcing (McInnis et al., 2017). For instance, without a robust grassroots base, NGO political work such as lobbying governments could be on “clay legs,” as may have been the case with the Nova Scotia Food Policy Council and the Nova Scotia Food Security Network. Conversely, effective policy-level political action could support neighborhood-level CFS work, such as introducing scale-friendly regulations and stronger farmland protection, as well as support in the social sector via minimum wage reforms, private-sector unionization drives, and affordable housing projects (e.g., ACORN), all of which affect household food insecurity and/or food justice. Institutional mapping could also be employed to track the agri-food system’s “blocking forces,” including regulatory bureaucracies, political party-corporate-pro-industry networks, and top-heavy health and food safety standards (Johnston & MacKendrick, 2015). Most critically, institutional mapping could facilitate identifying a broader coalition of allies among civil society, media, academic and activist communities, political actors and parties, and Indigenous Peoples (Andrée et al., 2016; Fairholm, 1999; Wakefield et al., 2012). The reality remains that there is still significant work and alliance-building needed to achieve a consensus among food security actors around the “first principles” of food system transformation.

## Conclusion

Since this study was conducted, indicators point to further deterioration of Nova Scotia’s food security status post-COVID along the production-distribu-

tion-consumption continuum (Tarasuk et al., 2022). Visits to food banks in Nova Scotia were up 27% in the first two months of 2023 compared to the same two months in 2022 (Currie, 2023) as grocery prices rose, compounded by a generalized cost-of-living crisis. Record corporate profits along the agri-food supply chain (Oved, 2022) point to further concentration in the distribution sphere. On the production side, census farm numbers and farmland acreage have fallen by 21.4% since the 2016 census (Statistics Canada, 2022). Nova Scotia’s food security situation post-COVID urgently needs research-action, including partnerships with local universities and CBOs. An additional research area could address why some of the NGOs fell by the wayside in food security work during our research—and perhaps since—due, possibly, to internal factors such as membership composition, internal governance, and mission overlap. Comparative studies of regions with similar farm and demographic profiles also offer possibilities for future research.

This paper sought to describe what NGOs in Nova Scotia are doing in the local food security space, spanning the rural county level to the provincial capital of Halifax. Each organization studied brought a unique set of research data, volunteer skillsets (e.g., practicing law, working in public relations or public health, farming) and knowledge from their neighborhoods of operation. Further, by creating reports and being featured in newspapers, the importance of local food security was brought forward on a somewhat regular basis in Nova Scotia. Although the reach of these organizations may have been limited due to the relatively small number of program participants, their experiences likely were significant to those who engaged in the outreach activities. For example, participants reported learning how to grow their own food and working in community gardens, gaining food processing and cooking skills that they could apply to their households, and maybe most importantly, accessing nutritious food that otherwise would have been difficult to attain. Despite all the obstacles encountered in this study, we believe that immense potential remains for a broad food movement to emerge in Nova Scotia that builds on the dedication and commitment of its food security NGOs. 

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## Appendix. Interview Guide

1. Tell us about your organization.
2. How does your organization define food security? What would be defined as a success in increasing food security?
3. Specifically, how does this organization try to impact local food security in Nova Scotia?
4. What initiatives have been undertaken to impact local food security?
  - a. In what region?
  - b. Impacts from these initiatives regarding...
    - i. Utilization of the food system, increased knowledge
    - ii. Improvement on food access
    - iii. Improvement on food availability
    - iv. Improvement on food affordability
5. Ask about specific projects undertaken by the organization as drawn from the media analysis and literature review.
6. Has this organization worked with other organizations on food security?
7. What has helped facilitate your work?
8. What have been the challenges your organization has faced in achieving goals?
9. What are your organization's future directions/initiatives?