

Giving a Fork about the Environment:  
Discursive Articulations of Food, Climate Change, and Environmental  
Sustainability in Canada's Food Guide

by

Anna Hum

A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in partial  
fulfillment of the requirements for the degree of

Master of Arts

in

Communication

Carleton University  
Ottawa, Ontario

© 2020, Anna Hum

## **Abstract**

This research explores how the Canadian federal government incorporates climate change and environmental sustainability concerns in the 2019 iteration of Canada's Food Guide and its supporting documents. Using a mixed analytical approach to discourse analysis, I analyze 52 government documents to discover how food, climate change, and environmental sustainability are discursively linked. My findings reveal that these considerations are wed together through dominant storylines that operate as channels to enact change; positioning citizens to adjust their behaviours to be more environmentally benign as a 'solution'. I argue that the guide's 'solutionist' approach to communication constructs a 'good' Canadian consumer and neglects larger questions over creating enabling environments. In doing so, I contend that the 'solutionist' approach acts as a cornerstone for transforming food guides to address climate change and sustainability at the individual level but does not sufficiently address the need for systemic change.

## Acknowledgements

My experience in this program has been as rewarding and enjoyable as it was challenging. I owe a debt of gratitude to several individuals who have been an integral part of my learning, and without whom I would have never completed this work.

To my supervisor, Dr. Chris Russill, thank you for your endless patience and support as I stumbled my way through the writing process. I've benefitted immensely from your thoughtful feedback, and I'm grateful that I could work with someone who could appreciate (or at least tolerate) my terrible sense of humour. To my second reader, Dr. Irena Knezevic, thank you for your encouragement and for always being so generous with your time. I'm appreciative of your constructive feedback which helped shape the final form of this thesis tremendously. I really couldn't have asked for a better committee for this project.

Thank you to the rest of the faculty and staff in the School of Journalism and Communication, as well as my fellow *comm*-rads in the Communication Graduate Caucus, for sharing your insights into communication scholarship, for all of the work that goes into creating this department's welcoming environment, and for always enthusiastically accepting my stress baking in pre-pandemic times. It's been a pleasure to be a part of such a wonderful community.

I would be remiss not to thank my wonderful cohort. It's difficult to sum up the last couple of years, but I'm fortunate to have navigated my degree alongside such hilarious, supportive, and brilliant people. Thank you for your friendship.

Finally, to my family, friends, and Parkies too numerous to name, thank you for always being there for me whether I was celebrating, complaining, or completely missing in action. A heartfelt thank you goes to Mom, Dad, George, and Michael for your unconditional love and unwavering support throughout this degree and life in general.

# Table of Contents

|  |             |
|--|-------------|
| <b>Abstract</b> .....  | <b>ii</b>   |
| <b>Acknowledgements</b> .....  | <b>iii</b>  |
| <b>Table of Contents</b> .....   | <b>iv</b>   |
| <b>List of Acronyms</b> .....  | <b>vii</b>  |
| <b>List of Tables</b> .....  | <b>viii</b> |
| <br>   |             |
| <b>Chapter 1: Introduction</b> .....   | <b>1</b>    |
| 1.1    Background and Research Questions.....  | 1           |
| 1.2    Thesis Outline .....  | 6           |
| <br>   |             |
| <b>Chapter 2: Literature Review</b> .....  | <b>8</b>    |
| 2.1    Climate Change Communication and Canadian Climate Policy .....                | 8           |
| 2.1.1 <i>Symbolic Storylines</i> .....   | 8           |
| 2.1.2 <i>Timelines and Targets: Global UNFCCC Meetings and Climate Science</i> ..... | 13          |
| 2.1.3 <i>Climate Change, Sustainability, and a Transitions Framework</i> .....       | 16          |
| 2.2    Sustainable Diet Expertise .....  | 19          |
| 2.2.1 <i>“Sustainable Diets”</i> .....   | 20          |
| 2.2.2 <i>Environmental Impacts of Food Choices</i> .....                             | 21          |
| 2.2.3 <i>Governing Food Choices through Policy and Governance</i> .....              | 23          |
| 2.3    Food-Based Dietary Guidelines .....   | 24          |
| 2.3.1 <i>Food-Based Dietary Guidelines Promoting Sustainable Diets</i> .....         | 24          |
| 2.3.2 <i>Canada’s Food Guide</i> .....   | 25          |
| <br>   |             |
| <b>Chapter 3: Theoretical Framework and Methodological Approach</b> .....            | <b>28</b>   |
| 3.1    Theoretical Framework.....  | 28          |
| 3.1.1 <i>Defining Discourse</i> .....  | 28          |

|  |  |           |
|--|--|-----------|
| 3.1.2  | <i>Foucauldian Interpretations of Discourse and the Concept of Governmentality</i> .....   | 29        |
| 3.1.3  | <i>An Argumentative Approach to Discourse</i> .....  | 31        |
| 3.1.4  | <i>Critical Discourse Analysis and its Practicality</i> .....  | 33        |
| 3.1.5  | <i>Ecological Modernization</i> .....  | 35        |
| 3.2  | Methodological Approach .....  | 36        |
| 3.2.1  | <i>Data Collection and Selection</i> .....   | 37        |
| 3.2.2  | <i>Data Analysis</i> .....   | 38        |
| <b>Chapter 4: Storyline Findings</b> .....       |  | <b>44</b> |
| 4.1  | Introduction .....   | 44        |
| 4.2  | “Choose Protein Foods That Come from Plants More Often” – A Plant-Based Storyline .....  | 46        |
| 4.2.1  | <i>A Health Narrative</i> .....  | 49        |
| 4.2.2  | <i>An Environmental Narrative</i> .....  | 51        |
| 4.2.3  | <i>A Socio-Economic Narrative</i> .....  | 53        |
| 4.2.4  | <i>Summary of the Plant-Based Storyline</i> .....  | 55        |
| 4.3  | “Food Waste Can Happen at All Levels of the Food Supply System. However, Almost Half of All Food Waste Happens at Home” – A Food Waste Reduction Storyline ..... | 56        |
| 4.3.1  | <i>An Environmental Narrative</i> .....  | 57        |
| 4.3.2  | <i>A Food Skills Narrative</i> .....   | 59        |
| 4.3.3  | <i>A Canadian Economy and Spending Narrative</i> .....   | 61        |
| 4.3.4  | <i>Summary of the Food Waste Storyline</i> .....   | 62        |
| 4.4  | Questions of Cultural Differences with Climate Change .....  | 62        |
| 4.5  | Summary .....  | 66        |
| <b>Chapter 5: Discussion of Storylines</b> ..... |  | <b>67</b> |
| 5.1  | Governmentality and Public Health or ‘Solutionist’ Approaches to Governance .....  | 68        |
| 5.2  | Constructing a “Good” Canadian Consumer/Citizen .....  | 71        |
| 5.3  | Situating the Food Guide’s ‘Solutionist’ Approach in Broader Climate Policy .....  | 75        |
| 5.3.1  | <i>Comparisons to Typical Canadian Climate Policy</i> .....  | 75        |

|                                    |  |           |
|------------------------------------|--|-----------|
| 5.3.2                              | <i>Revisiting Approaches to Systems Transition</i> .....                       | 77        |
| 5.3.3                              | <i>Considerations and Implications for Addressing the Climate Crisis</i> ..... | 79        |
| <b>Chapter 6: Conclusion</b> ..... |  | <b>82</b> |
| 6.1                                | Overview of Research.....  | 82        |
| 6.2                                | Key Findings.....  | 84        |
| 6.3                                | Theoretical Contributions .....  | 86        |
| 6.4                                | Pathways Forward .....   | 87        |
| 6.4.1                              | <i>Limitations and Avenues for Future Research</i> .....                       | 87        |
| 6.4.2                              | <i>Recommendations for Improving the Food Guide</i> .....                      | 88        |
| 6.5                                | Final Thoughts .....   | 90        |
| <b>Appendices</b> .....            |  | <b>93</b> |
| <b>References</b> .....            |  | <b>99</b> |

## **List of Acronyms**

AAFC – Agriculture and Agri-food Canada  
ADA – Argumentative Discourse Analysis  
CDA – Critical Discourse Analysis  
CFG – Canada’s Food Guide  
ECCC – Environment and Climate Change Canada  
ESDC – Employment and Social Development Canada  
FBDG – Food-Based Dietary Guideline(s)  
FCCC – Framework Convention on Climate Change  
GHG – Greenhouse Gas Emissions  
IPCC – Intergovernmental Panel on Climate Change  
PCO – Privy Council Office  
SDG – Sustainable Development Goals

## List of Tables

|   |    |
|---|----|
| Table 1: List of Categories and Subcategories ..... | 43 |
|---|----|

## Chapter 1: Introduction

The full story of climate change is the unfolding story of an idea and how this idea is changing the way we think, feel, and act. Not only is climate change altering our physical world, but the idea of climate change is altering our social worlds. And this idea is reaching farther and farther across our social worlds. Rather than asking ‘How do we solve climate change?’ we need to turn the question around and ask ‘How does the idea of climate change alter the way we arrive at and achieve our personal aspirations and our collective social goals?’ (Hulme, 2009, xxvii)

### 1.1 Background and Research Questions

I first read the above quotation the summer before I began my graduate program, and it is admittedly one I have often returned to. The provocation to think more expansively about the climate crisis as a catalyst in re-examining my perception of my place in the world is a line of inquiry that has resonated quite strongly with me. When I sit back and reflect on the manner in which the idea of climate change has transformed the way that I think, the way I feel, and the way that I act, I realize that it mediates a great deal of my life. Over time, and in varying degrees, the idea of climate change has shifted my consumption habits. It has reconstructed my politics. It informs how I think more broadly about the world that I live in and the interlocking nature of social injustices. It has been the origin of an onslaught of feelings and emotions ranging from grief, anger, sadness, and confusion, to feelings of hope and of joy. While this reflective exercise serves as a welcomed distraction from otherwise spending my time fretting about climate change and its pressing terrors pushing us further into a hellscape, in these deliberative moments I also wonder, how often do the people around me reflect on the crisis? All the time? Never? The climate crisis is the greatest challenge of the twenty-first century and as each day passes, climate change and its effects continue to collectively thrust us into increasingly more catastrophic futures. So then why does so much around me seem to be staying the same while our physical world is irrevocably being changed?

Surely, not everything has been stagnant. As I write this, we are in the midst of the SARS-CoV-2 pandemic<sup>1</sup> which rapidly upended our social lives in order to address the public health emergency<sup>2</sup>. There are parallels to climate change, as both crises are global and unprecedented in their level of disruption, but unlike the current public health crisis, the responses to the climate crisis are less acute. Nevertheless, prior to this massive upheaval in our social worlds caused by the pandemic, on a global level, there had been a significant increase in public awareness and engagement with climate change and the idea of it over the last couple of years. The release of the United Nations Intergovernmental Panel on Climate Change (IPCC)'s 2018 report outlining an ambitious target of needing to achieve net zero emissions by 2050 in order to meet the goals of the Paris agreement<sup>3</sup> prompted national governments and local jurisdictions to declare climate emergencies (Calma, 2019; Sahota, 2019) and inspired news stories highlighting “climate-friendly” measures that individuals can adopt into their lifestyles (Del Valle, 2018; Taylor & Vaughn, 2018). Perhaps most prominently, the report had elicited the Fridays for Future youth strikes for climate action founded by Swedish activist Greta Thunberg, which have since mobilized millions of people to draw attention to the climate crisis and demand action on climate change from respective governments<sup>4</sup>. In late September 2019, Canadians joined the global climate strike with large demonstrations held across the country. Each saw impressive numbers, including roughly 500,000 protestors in Montreal (Hudema, 2019), 100,000 protestors in Vancouver (Little, 2019), and tens of thousands of protestors who marched on Parliament Hill for the demonstration held in the Nation's Capital (CBC News, 2019). Given the

---

<sup>1</sup> Also referred to as the coronavirus disease or COVID-19.

<sup>2</sup> Suspension of gatherings, closures of schools and workplaces, and limiting non-essential trips out of the home are just some examples of the swiftly deployed public health measures meant to interrupt the transmission of the virus.

<sup>3</sup> See Intergovernmental Panel on Climate Change. (2018). *Global Warming of 1.5°C*. <https://www.ipcc.ch/sr15/>

<sup>4</sup> More information on the Fridays for Future strikes can be found at <https://fridaysforfuture.org/>

timing of these demonstrations before the 2019 Canadian federal election, they also amplified the demand from voters for the major political parties to include climate change as part of their platform (Wherry, 2019) – making it clear that political action is an essential form of climate action.

Amid just these few examples of developments, it is apparent that the idea of climate change is playing a significant role in shaping how we act. Rather than the idea of climate change being put into context, in that it is discussed as a factor impacting systems in various ways<sup>5</sup>, climate change is becoming a part of the context in the various ways we, as societies, operate and continue to move forward – much like a system in and of itself. The idea of climate change is not siloed, but rather thought of as something that impacts, functions alongside, and is interwoven with various interplays of life, inclusive of politics, culture, and economics. This more comprehensive understanding of climate change is a compelling entry point into my area of study – food-based dietary guidelines (FBDGs). Upon a first glance, this may seem like a rather enclosed area of study as FBDGs are typically used as formal, science-based nutritional guidance that is intended to support food selection and promote nutritional public health goals for the population level (Katamay et. al., 2007). Captured under the umbrella term of ‘policy’, food-based dietary guidance acts as a foundational tool that informs federal nutrition policy and programs (Jessri & L’Abbe, 2015). However, food-based dietary guidelines that include sustainability considerations also act as one site where global dynamics responding to climate change adaptation and mitigation are working themselves out.

---

<sup>5</sup> Such as poorer air quality when spoken about in a health context, thus impacting healthcare systems.

Most notably in 2019, the Eat-Lancet Commission<sup>6</sup> published a report calling for a necessary, radical shift of the global food system in order to meet the United Nations Sustainable Development Goals (SDGs) and Paris Agreement. Working under the assertion that diets inextricably link human health and environmental sustainability, the research group outlined the need for a “Great Food Transformation” comprising of both hard and soft policy levers to implement that is inclusive of international and national commitments to healthy diets, reoriented agricultural priorities, intensified food production, coordinated governance of lands and waters, and reductions in food loss and waste (Eat-Lancet Commission, 2019). As one part of this strategy, the Eat-Lancet Commission suggests that relevant governing bodies should implement appropriate educational tools on sustainable food systems, including dietary guidelines for healthy diets from sustainable food systems, that are “supported by enabling policies and incentives, and reflected through public procurement policies” (Eat-Lancet Commission, 2019, p. 480). Additionally, the call for dietary shifts as a mechanism to respond to climate change is further reiterated in another report published by the IPCC<sup>7</sup> in 2019, which reviews response options that can be “deployed and scaled up throughout the food system to advance adaptation and mitigation” to the effects of climate change (IPCC, 2019, p. 25). One solution identified within this report is the pressing need for diversification in the food system, including dietary changes, to free up agricultural land and provide mitigation potential. Given an emerging necessity to shift dietary practices in the industrialized world, and how FBDGs can play an

---

<sup>6</sup> The Eat-Lancet Commission is a group of researchers from across various disciplines of health, agriculture, political science, and environmental sustainability who developed global scientific targets for healthy diets and sustainable food production. More information on their work can be found at <https://eatforum.org>

<sup>7</sup> Intergovernmental Panel on Climate Change. (2019). *Climate Change and Land: an IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse gas fluxes in Terrestrial Ecosystems*. <https://www.ipcc.ch/srccl/>

important role in facilitating this process, my thesis research considers FBDGs beyond their conventional intentions of health promotion to focus on wider considerations. Specifically, I interrogate Canada's Food Guide (CFG) as a site of study, as the Canadian federal government is using the guide to influence consumer behaviour to address climate change and environmental sustainability.

In January 2019, Canada updated its national FBDG to reflect this growing body of expertise suggesting that the current global food system poses wide-ranging detrimental impacts on ecosystems as well as on human health. A perhaps under-utilized, but needed, component to address the myriad of challenges both caused by and affecting food systems is a shift towards healthy and environmentally responsible dietary patterns. My thesis explores how the Canadian federal government incorporates climate change and environmental sustainability concerns through its newest FBDG and its supporting documents. In studying how Canada's Food Guide is presented as a tool that the Canadian federal government is using to influence consumer behaviour and institutional practices to address climate change and sustainability, this thesis investigates how climate change and sustainability are articulated together within the guide and its surrounding discourses. In this way, I examine in greater detail how these texts reflect and create social-economic, cultural and political realities of following a sustainable diet in Canada, in the context of sustainability and climate change concerns. Particularly, I seek to address the following research questions: 1) how are food, sustainability, and climate change discursively articulated together in the CFG? and 2) how is the relationship between citizens and government articulated within the CFG?

Past research that has focused on Canada's Food Guide has primarily been concerned with the 2007 version of the food guide, examining the nutritional basis of the guide (Kondro,

2006), the functionality of the guide (Bush & Kirkpatrick, 2003; Mudry, 2010; Rachul, 2016; Amend, 2016), and the politics historically embedded within the guide and its previous iterations (Mosby, 2014). Yet, there is little literature analyzing sustainable diets in the context of food-based dietary guidelines in a Canadian context. No study has yet investigated the 2019 iteration of the food guide as the primary object of study, nor does the current literature analyze the discursive connections between food, climate change, and environmental sustainability within food-based dietary guidelines. By discerning analytically how these fields are discursively articulated within the Canadian food guide, this project provides new insights on how a story of climate change and climate policy are unfolding within an examination of food policy.

## **1.2 Thesis Outline**

This thesis is organized into six chapters. Following the introductory chapter, Chapter 2 situates this study within a broader history of the climate change policy and communication in Canada by discussing the existing literature on symbolic storylines which have tended to dominate public discourse of climate change in the country. I then review emerging research and expertise on sustainable diets, the relationship between climate change and food, as well as highlight the role of food-based dietary guidelines and their politics within Canada.

Chapter 3 outlines the theoretical and methodological foundations of this thesis. In this chapter, ideas about what discourse entails are explained and defined. I identify the work of Foucault, Hajer, and Fairclough as they each provide important conceptual tools and frameworks used in this research. Next, I describe my distinct approach to discourse analysis with an explanation of the specific methods used in this thesis, including my data collection and analysis processes.

I present the results of my analysis in Chapter 4. Using examples from the texts themselves, I identify the prominent storylines that compose the food guide and reveal how questions of food, climate change, and environmental sustainability are playing themselves out explicitly within the documents.

Chapter 5 outlines broader themes that emerged from the storyline analysis to reflect on how the relationship between citizen and government is expressed and aligns these findings to relevant literature. In this chapter, I offer critiques of the guide as well as situate the guide's approach in broader climate policy.

Finally, Chapter 6 concludes this thesis with a summary of the findings. I connect how the food guide fits within broader discussions of climate change in Canada and present my contributions to existing literature. I also identify limitations of this research, offer suggestions for future research possibilities, and provide recommendations to develop the guide in a manner which better articulates food, climate change, and environmental sustainability together.

## **Chapter 2: Literature Review**

This research looks at Canada's Food Guide and explores how food, climate change, and environmental sustainability are discursively articulated within the guide, to demonstrate how federal food policies are being modified to address climate change. To provide context to my research, the following chapter first examines existing literature on how the Government of Canada has communicated about climate change in the past. Here, I review some of the symbolic storylines which tend to dominate public discourse of climate change in Canada, and then provide a brief historical account of Canada's approach to climate change policy. I conclude this section by giving important consideration to the systems transition approach in addressing how to mitigate and adapt to climate change moving forward. Next, I review the current expertise concerning sustainable diets and emphasize the relationship between our food choices and their environmental impact. Lastly, I provide a discussion on food-based dietary guidelines including their development, their politics within Canada, and the role they can play in providing an essential first step towards greater environmental sustainability in the context of food and diet.

### **2.1 Climate Change Communication and Canadian Climate Policy**

#### *2.1.1 Symbolic Storylines*

Much of the current literature on government communication and climate change revolves around examining media (for example, see Nisbet & Newman, 2014; Feldman & Hart, 2018), and describes the ways in which media framings of climate change can influence public perceptions on environmental problems (Nisbet & Newman, 2014). Most notably, these frames can often be grouped into the categories of social progress, economic development, morality/ethics, scientific/technical uncertainty, fatalism, public accountability/governance, alternative paths, and conflict/strategy (Nisbet & Newman, 2014). Despite these categories, there

are some scholars who argue that there is actually no established frame for the environment in public discourse (Lakoff, 2010) and, rather, these are institutionalized frames which the environment becomes a part of instead. For example, amid climate change communication research, there is a growing interest in how climate change is framed by a public health approach. In these instances, an “epidemiological imaginary” (Russill, 2008) represents a trend in climate change discussions to explain and reshape the threats of environmental danger. Indeed, scholars (Maibach, Nisbet, Baldwin, Akerlof, & Diao, 2010; Myers, Nisbet, Maibach, & Leiserowitz, 2012) have noted that reframing climate change as a public health issue can be a more salient way for audiences to comprehend a deeply difficult issue, and a public health framing generally receives positive reactions where an emphasis on the public health consequences of climate change can inspire feelings of hope, which likely “increase the probability that individuals will choose to engage with the issue and adopt beliefs and behaviors consistent with efforts to stem the problem” (Myers et. al., 2012, p. 1107). Health professionals, too, have noted a requirement to develop new ways of thinking, communicating, and operating as climate change presents a health hazard of unprecedented scale and complexity (Frumkin & McMichael, 2008). In leaning into a public health approach to climate change communication, individuals may be more persuaded to alter their lifestyles<sup>8</sup> in alignment with public health goals through social marketing, risk communication, and information-based health communication (Frumkin & McMichael, 2008).

Oftentimes, symbolic storylines structure and dominate public discourse which government communication attempts to shape and reify through its framing. As critical scholars note, this is possible as journalistic practices, editorial cultures, and increasing media

---

<sup>8</sup> Otherwise considered as a behaviour change approach.

concentration work to normalize framing techniques that privilege discourses preferred by political and economic elites (Curran, 2002 as cited in Raso & Reubauer, 2016). In Canada, these frames most notably occur throughout discussions of tar sands and pipelines, carbon pricing, and the North which tend to cast these issues as business concerns that are challenging to industry. As such, they overshadow discussions on fundamental changes to systems of social provisioning, such as transportation or food production.

Situated in Alberta, Canada's tar sands are the subject of political debate and arguably, are Canada's most contentious natural resource. This carbon intensive and ecologically destructive source of oil has gained growing amounts of attention both nationally and internationally through debate over pipelines to expand bitumen export and broader concerns over the environmental impacts of the oil sands. With regards to literature on media coverage of Canada's oil sands in particular, Gunster and Saurette's (2014) work reveals that the *Calgary Herald's* coverage positions the oil and gas industry as victims of "extremists" that are bent on destroying a necessary industry. In doing so, this "victimization" narrative defends the industry, and champions ideas that governmental actors must also become aggressive defenders of the industry. Thus, this framing legitimates the government into a role of a petro-state which needs to fulfill its obligation to protect the exploitation of this resource and its exaggerated economic benefits.

The idea of Canada as a petro-state is mirrored when we turn towards literature on media and pipelines. Given that the federal government has a relatively high "mediated visibility" in media reporting (Stoddart, Tindall, Smith & Haluza-Delay, 2017), scholars have noted that in news reporting, the Canadian government oftentimes is the most prominent source cited. In these citations, the state's representatives often juxtapose any environmental issues with the potential

economic benefits of pipelines, where attention is given to gas prices, profitability of oil companies, and job creation (Raso & Neubauer, 2016; Wood, 2019). This ultimately reinforces the notion of an economic imperative for bitumen exports and strengthening support for the industry, while delegitimizing the genuine concerns of pipeline opponents, many of whom live in proposed pipeline areas and whose lives would be directly affected by such developments.

Furthermore, climate change is addressed in public discourse through carbon taxes. Most simply, a carbon tax is a tax applied to each unit of carbon emissions, intended to create a financial incentive for consumers and industries to reduce their carbon emissions rather than completely stopping the use of fossil fuels altogether (Peet & Harrison, 2012). Despite consistently being endorsed as an adequate policy measure to mitigate climate change by climate experts, carbon pricing remains a controversial topic in Canada and is consistently one of the least supported policy instruments by the public (Lachapelle, Borick & Rabe, 2012). As Harrison (2012) discusses, carbon taxes generally can be viewed as “good policy” rather than “good politics” whereby the form of taxation is an economically efficient and environmentally effective policy tool, however, receives an immense amount of backlash and is thus not a wise political choice. In general circumstances, it is advised to pursue carbon pricing by stealth – through cap and trade measures or through incremental change – if certain conditions, such as the current political leadership not holding majority in a parliamentary system, are not met (Harrison, 2012).

With consideration to the communication around carbon pricing, we can look towards British Columbia’s implementation of a “revenue-neutral” carbon tax. The first of its kind in the country, Gunster (2010) suggests that the provincial carbon tax was a favourable policy to begin with, however, the framing of the carbon tax led to public backlash. In his description of the discussions of the tax, Gunster (2010) relays that discussion of the tax in government

communication and in news media was dominated by messages of the tax's financial benefits. Rather than including the environmental rationale for the proposed tax to engage civic actors with a common interest, Gunster (2010) argues that climate change was portrayed as a problem that consumer choices could fix. In this way, when news media placed focus on how the tax would impact the public's personal finances, this framing encouraged individuals to consider how the tax would affect their lifestyle choices and fueled what Gunster (2010) labels the "hardship frame" whereby individuals perceived the tax as a punitive measure, leaving themselves with little ability to change their carbon-intensive lifestyles. Ultimately, this finance-focused framing resulted in a reactionary, self-interested orientation from the public which contributed to less support of the environmental policy.

The emphasis placed on climate change alongside economic opportunities is further engaged with when considering how the North has become a symbolic storyline for how the government communicates climate change. While not as central to Canadian news coverage on climate change compared to the aforementioned storylines of tar sands, pipelines, and carbon taxes, there is still modest visibility for climate change and the Arctic within the larger field (Stoddart & Smith, 2016). Chater (2018) found that the Government of Canada's communication on climate change between 2006 and 2016 primarily focused on how the climate crisis would endanger the Arctic's wildlife, as well as the economic opportunities that the crisis presents for northern communities. This is consistent with Stoddart and Smith's findings that climate change in the Arctic is often framed through the melting of sea ice but coupled with conversations that this phenomenon, in turn, offers new shipping routes (2016). Despite the disproportionate impacts that climate change has/will have on northern communities, ultimately, these scholars show that Canadian news coverage promotes a unified vision of Canada that has national

economic interests in the North. They note that through this framing, these actors may be alluding to the idea that these communities – and the broader Canadian population – may see benefits from climate change.

These examples illustrate how, with each given storyline, the focus is generally placed on the potential economic opportunities or economic imperatives of a given project which can, sometimes, backfire in establishing support for certain policies (Gunster, 2010). As this literature demonstrates, the typical ways that governmental communication on climate change in Canada is dominated in public discourse is, oftentimes, tied with conversations relating the crisis with economic imperatives, aligning well with notions of ecological modernization (which is discussed in section 3.1.5). As my research attempts to locate food consumption in the broader discourse of governmental climate change communication in novel ways, it also works to reveal if a narrative combining questions of food and climate change remains consistent with these patterns seen in media coverage of climate change. However, media does not directly dictate policy, and governments themselves can be particularly important in building frames as they define the range of possible policy responses to a given issue (Lim & Seo, 2009). With this in mind, it is debatably of greater importance to provide critical assessments of the existing institutions, practices, and structures through which government can intervene with the use of legal, regulatory, and policy instruments in order to mitigate and adapt to climate change. I next turn to a more historical context of Canada's climate change record and policy responses.

### *2.1.2 Timelines and Targets: Global UNFCCC Meetings and Climate Science*

Historically, the Government of Canada has failed to meaningfully reduce its greenhouse gas emissions despite having a significant per-capita footprint. As Simpson, Jaccard, and Rivers (2007) illustrate, the Government of Canada has continuously accepted onerous obligations

under the United Nations Framework Convention on Climate Change (FCCC) regarding GHG-reduction targets. These targets are established through the FCCC as general obligations for signatories to achieve in order to stabilize greenhouse gas concentrations in the atmosphere. Of particular note when considering the history of Canada's climate change policy is the 1997 Kyoto Protocol, which established an international institutional framework for domestic responses to climate change. An extension of the 1992 FCCC voluntary stabilization targets, the Kyoto Protocol committed countries to legally binding targets to limit or reduce greenhouse gases – for Canada, this meant reducing its average annual greenhouse gas emissions by 6 percent below its 1990 level, a target it promised to meet between 2008 and 2012.

After committing Canada to the Kyoto Protocol in 1997, the then-governing Liberal Party committed \$150 million over 3 years to establish the Climate Change Action Fund. This fund mainly focused on GHG emissions mitigation and adaptation primarily through enhancing awareness and understanding. Ample academic literature describes that the developments of Canada's approach to climate change that came before and after the Kyoto Protocol were similar to this fund, as they allotted modest spending which sought to expand adaptation research capacities, facilitate collaborative relationships, and include voluntary measures to reduce GHG emissions regardless of changes in political leadership (Simpson et. al, 2007; MacNeil, 2014; Henstra, 2017). Despite these “advances”, the envisaged reductions of implemented plans, including the Chrétien government's *Action Plan on Climate Change* (2000), still only amounted to one third of its legislated Kyoto target. Essentially, this approach to climate change has been considered as a “do-nothing strategy” by some (Simpson et. al., 2007) as the policy responses

were primarily vacuumed into a suite of policy options of rhetorical good intentions, with no actions in particular that would demand a significant decrease GHG emissions.<sup>9</sup>

In 2006, the Conservative Party came into power and opposed the Kyoto Protocol. Although in 2009 the government had signed the Copenhagen Accord in agreement to reduce Canada's GHG emissions to seventeen percent below its levels in 2005 by 2020, an official report later stated that Canada would, unsurprisingly, not meet this target (Environment Canada, 2014). Partially due to a lack of agreement between Canada's federal and provincial governments on a best approach to combat climate change (Lachapelle, Borick & Rabe, 2012) in 2011, Canada became the only country to formally withdraw from the Protocol after ratification in 2002.

Yet, despite consistently signing onto these agreements under the FCCC and the government's inability to meet these goals under the timelines and targets approach, the broader Canadian population has shown to be generally supportive of the state's role and assign responsibility to all levels of government to reduce GHG emissions. Generally speaking, Canadians have an appetite for aggressive climate policy and want the climate crisis addressed when mitigation strategies are led by government and industry (Lachapelle et. al, 2012). As such, the Liberal government signed onto the Paris Agreement in 2015, which aims to limit the global average temperature rise to below 2°C. Accordingly, this roughly translates to a thirty percent reduction of net emissions from 2005 levels for Canada by 2030 (Environment and Climate Change Canada, 2016). More recently, the Government of Canada has also announced that it will work towards achieving a net-zero emissions future by 2050 (Environment and Climate Change

---

<sup>9</sup> From another viewpoint, the Kyoto Protocol also created outrage from the right, perhaps leading to the first wave of climate change skepticism and denial in Canada. Aldous Sperl's thesis (2013) provides a more detailed discussion on climate change denial in Canada through an evaluation of two climate change denial organizations.

Canada, 2019). However, Canada's history of climate change policy has demonstrated that, in practice, acting on climate change through short-term incremental goals in GHG emission reductions has made little progress overall. This brings forth questions on the extent of the effectiveness of this approach and whether there are more appropriate pathways forward. As Howarth (2017) discusses in relation to the United Kingdom's climate targets, perhaps shifting to translate the complexities of scientific jargon into salient transitions frames can create "a space to connect and discuss what a low carbon future may look like and life within it" (p. 301). I next turn to a discussion of a sustainable transitions approach.

### *2.1.3 Climate Change, Sustainability, and a Transitions Framework*

Evidently, the Government of Canada has primarily leaned towards policy measures concerned with short-term educational and voluntary behavioural changes opposed to larger-scale transformative changes as a means of fulfilling the commitments made under the United Nations FCCC. While these latter conversations may be useful, serious and aggressive climate change policies cannot be anchored in these conversations (Simpson et al., 2007, p. 250). Rather than committing to short-term, national obligations to perform as a lead on climate change (with which nothing very effective is accomplished to close the gap between rhetoric and reality), some suggest that more serious engagement with the challenge of climate change mitigation in Canada can be encouraged by a societal transition to a low-carbon-emission economy (Meadowcroft, 2016, p. 10).

In a transitions approach, addressing climate change isn't simply about a national scale solution, but rather about pursuing multiple sector-level interventions. Given the formidable societal challenges that climate change and other environmental problems present, a transitions framework addresses these problems through deep systemic changes that are often called "socio-

technical transitions” as they involve altering the overall configuration of transport, energy, and agri-food systems entailing technology, policy, markets, consumer practices, infrastructure, cultural meaning, and scientific knowledge (Geels, 2004; Geels 2011). This approach offers a pathway towards sustainable development through structural changes in major systems of social provisioning across different scales, stretched over time. With a direct focus on sustainability, the transitions approach proponents argue that the current governance model requires change and reorientation to allow for a shift towards sustainability (Frantzeskaki, Loorbach, & Meadowcroft, 2012) and that sustainable development is built by innovating and redefining existing cultures, structures, and practices in an evolutionary manner (Frantzeskaki et. al., 2012, p. 25).

Some transitions literature emphasizes change through a multi-level perspective. This approach to socio-technical transitions requires interplay between three different levels: niches, regimes, and the landscape (Geels, 2004; Geels 2011). Niches are considered spaces for radical innovations that deviate from the dominant, existing regimes. Novel practices that support emerging innovations are facilitated through these spaces and gain momentum if expectations become more precise and broadly accepted. They provide locations for learning processes, trials, adaptations, and overall, where it is possible to deviate from the norm. Niches, therefore, are considered to be crucial for transitions because they provide the “seeds for systemic change” (Geels, 2011, p. 27). In contrast, regimes are the deep structures of dominant practices, technologies, infrastructure, rules, beliefs, and practices that form the existing system (Geels, 2004). Regimes refer to the meso-level construct of semi-coherent sets of rules that orient the activities of social groups that reproduce the elements of the system, including (but not limited to): shared beliefs, lifestyle and user practices, and favourable institutional arrangements (Geels, 2011). They are often characterized by path dependencies and lock-ins of current technologies,

therefore potentially constraining the breakthrough of niches. Finally, the landscape refers to the wider context influencing niches and regimes, including political ideologies, societal values, and macro-economic patterns, which niches and regimes cannot influence in the short term (Geels, 2011). In the multi-level perspective, a transition to sustainability calls for a dynamic shift in how the regime operates, and its verticality creates possibilities for changing how things are done.

Certainly, a multi-level perspective can be applied to a sustainability transitions in a multitude of ways. However, when incorporating the idea of transitions to sustainability into food and agricultural systems specifically, others have argued that a social practices approach to sustainability transitions may potentially offer a more fruitful avenue (Hinrichs, 2014). Whereas the multi-level perspective has been criticized for prioritizing technological changes and de-emphasizing human agency, the social practices approach “considers persistence and change on a more horizontal level by analyzing the social organization, continuities and possible ruptures in people’s everyday practices” (Hinrichs, 2014, p. 149). In this way, an understanding of how the elements and patterns of these practices become routinized can shed light to what is possible and what actually happens when novel forms of sustainability innovations are introduced (Hinrichs, 2014).

In a Canadian context, much of the theoretical work done on sustainable transitions tend to focus on energy and electricity systems (Rosembloom & Meadowcroft, 2014; Rosenbloom, Haley & Meadowcroft, 2018). As Rosenbloom, Meadowcroft, Sheppard, Burch, and Williams (2018) discuss, low-carbon transition experimentation can be a promising endeavor to confront climate change and major societal problems. These experiments are deliberate interventions that explicitly test innovative social and technical projects linked to a larger vision of transforming

the energy sector to a low-carbon system (Rosenbloom et. al., 2018). Where Canadian food systems are concerned, there is less theoretical scholarship which considers the food system from a systems transition perspective. Rather, consideration for sustainability is applied to community food systems and place-based capacities for building greater sustainability (Blay-Palmer, Landman, Knezevic & Hayhurst, 2013; Blay-Palmer, Sonnino & Custot, 2015; Levkoe, 2017). However, scholars note that given the complexity of pressures on food systems globally, future research on sustainable food systems should consider the issue of governance and tackle questions of appropriate intervention points, as the state can act as both an enabler and barrier (Blay-Palmer et. al., 2013).

## **2.2 Sustainable Diet Expertise**

An understanding of the expertise on sustainable diets is contextually important to understand how climate change, sustainability, and food are discursively articulated together within Canada's Food Guide. Research on sustainable diets is an emerging field with a growing body of work that has, at times, struggled to clarify its agenda due to much contestation that stems from practical and conceptual problems of sustainability and food. Much of this contestation derives from the various ways in which the notions of "sustainability" and "sustainable diet" are meant, how the concept of a sustainable diet can be interpreted and used to describe scenarios across the food chain, as well as its overall limited relevance worldwide given its focused concern on the industrialized world. While contestation and an abundance of research orientations can certainly be productive, for the purposes of this thesis, I bring to the fore what can be constituted as a more complete understanding of a "sustainable diet" in Canada, considering it to be a "boundary object" (Star & Griesemer, 1989) situated at the intersection of many different ways food aligns with other interfaces between social worlds. From there, I delve

further into what some of the environmental impacts of our food choices are, and ways governing bodies can consider addressing sustainable diets in particular.<sup>10</sup>

### 2.2.1 “Sustainable Diets”

The idea of “sustainability” often refers to a set of criteria to achieve better alignment between environmental, economic, and societal goals. The term has often been associated with the 1987 Brundtland report which suggested a policy framework for development that should give equal emphasis to the environment, society, and the economy. The report itself gave momentum for global, national, and regional environmental policies, leading to multiple interpretations and expressions across a wide range of disciplines (Schubert & Láng, 2003). In common parlance, the word has come to mean “living in a manner that is environmentally benign” (Mason & Lang, 2017, p. 8). While admirable, some argue that these conventional approaches to thinking through sustainability are not adequate as they either do not consider other elements impinging on the environment, or do not fit the complexity that is raised when we begin to consider diets and the wider food system (Mason & Lang, 2017). Instead, it is contended that our grasp of food and sustainability must move beyond our understanding of sustainability that signals intersections between the environment and the economy and, rather, moves towards a more nuanced approach that includes a combination of factors and interrogates possibilities of new social, political, and economic relationships in the food system (Blay-Palmer et. al., 2013). Mason and Lang (2017) propose that the intricacies of sustainability and food can be represented through six key features: environment, health, social values, quality, economy, and governance. Through this proposition a “sustainable diet” moves from a broad term which

---

<sup>10</sup> This thesis is cognizant that the primary considerations for a sustainable diet utilized in this project are not applicable for much of the planet where other more realistic interventions should be considered. Despite limited relevance globally, my considerations for sustainable diets as they pertain to industrialized countries remains an appropriate framework for this project given my clear focus is on Canada.

typically only considers health and environment, to a term which encapsulates multiple goals of eating well for human health in a manner that causes the least environmental damage. In this way, a definition of sustainable diet can be considered as one that “optimizes good sound food quality, health, environment, socio-cultural values, economy, and governance” (Mason & Lang, 2017, p. 9). This definition echoes other institutional definitions, such as the Food and Agriculture Organization of the United Nations (FAO)’s consideration of a sustainable diet as the following:

A sustainable diet is one with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. [It is] protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources (FAO, 2019).

These more comprehensive understandings of a sustainable diet imply a better alignment of consumption with the environment, and also account for the ways in which food and diet represent not only nutrition, but also a number of socio-cultural meanings including class, preference, availability, and moral values as well. While my project is more closely aligned with the specific contexts of food and diet with the environment and with governance, each of the remaining clusters proposed by Mason and Lang (2017) are important to the analysis of this research and inform my coding process (elaborated on in section 3.2.2).

### *2.2.2 Environmental Impacts of Food Choices*

Food and diets have a considerable environmental impact. Ample research has shown that the current global food system poses wide-ranging detrimental effects and that if we are to achieve substantial reductions in food-related greenhouse gas emissions, we need to address not only how we produce and distribute our food, but also what we eat and drink (Garnett, 2011; Beverland, 2014; Donati et. al., 2016). Indeed, agriculture is estimated to be responsible for up to

30% of greenhouse gas emissions (Garnett, 2011) and food consumption has been identified as one of the most important drivers of environmental pressure. While the food system produces GHG emissions at all stages, the greatest impacts occur at the agricultural stage from soil and livestock processes producing significant methane and nitrous oxide emissions. In particular, meat and meat products are generally identified as the group with the most GHG emissions attributable to the food sector while, comparatively, plant foods generally make smaller contributions to GHG emissions. While this has often been problematized as a production challenge and a need to improve the environmental efficiency of food production, there is growing acknowledgement of a need for a consumption-based approach as well. This can include (but is not limited to) a change in human dietary patterns that turns towards, and normalizes, the consumption of more climate-friendly foods and reduction of foods with a greater emissions contribution.<sup>11</sup> One Swedish study in particular concluded that, unless unprecedented advances in agricultural technologies take place, reducing meat and dairy consumption is indispensable for reducing global GHG emissions to meet the United Nations FCCC's 2 °C target (Hedenus, Wiresenius & Johansson, 2014).

In Canada, an idealized scenario from a GHG-reduction perspective consists of the following:

eating a primarily organic plant-based diet, minimally processed and packaged, and frequently raw during the Canadian growing and storage season, with most food sourced within a few hundred kilometres and distributed by rail instead of truck, or through collaborative trucking mechanisms (MacRae, Cuddeford, Young & Matsubuchi-Shaw, 2013).

These considerations are consistent with a number of studies that have evaluated the impacts of different types of diets, and how dietary changes where reducing intakes of animal foods may

---

<sup>11</sup> Other consumption-based considerations include buying food from local producers, purchasing organic, reducing packaging, and minimizing food waste.

contribute to lower environmental impacts (Hallström, Carlsson-Kanyama, Börjesson, 2014; Hendenus et. al., 2014; Aleksandrowicz, Green, Job, Smith & Haines, 2016). Certainly, a reduction in animal foods has been shown to reduce GHG emissions, but also land use, water pollution, and energy use. However, it remains that the typical food intake by Canadians (at least, in Ontario) is, still, often rich in animal products with a high global warming potential (Veeramani, Dias & Kirkpatrick, 2017).

### *2.2.3 Governing Food Choices through Policy and Governance*

With growing evidence for a need of change in diet, questions emerge on what the best pathways towards improved food sustainability are, and consideration should be placed on the issue of governance (Blay-Palmer et. al., 2013). Intersecting with questions of power, class, and social justice, Mason and Lang (2017) note that there is no singular straightforward option to governance and, indeed, governance in and of itself can become a battleground of arguments on how best to achieve change (p. 261). Some various, broad positions on what to do, which may overlap, include: seeing technology as a source of solutions, incorporating “soft policy” such as food labelling to place responsibility on consumers, focussing on higher risk issues within sustainable diets like meat reduction, and creating dietary food guides which clearly integrate environmental sustainability considerations and are championed by more than one governmental department or agency (Mason & Lang, 2017). While each conceptual position provides interesting avenues and potential interventions to think through, this thesis is primarily concerned with dietary guidance and seeks to discover the ways that the Canadian food guide incorporates sustainability and climate change considerations; the next section will elaborate on how FBDGs can include these kinds of deliberations.

## 2.3 Food-Based Dietary Guidelines

### 2.3.1 *Food-Based Dietary Guidelines Promoting Sustainable Diets*

At their core, dietary guidelines are formal, scientifically based nutritional guidance for the population that are intended to support public health goals. National food-based dietary guidelines (FBDGs), according to the FAO, consist of the following:

context-specific advice and principles on healthy diets and lifestyles, which are rooted on sound evidence, and respond to a country's public health and nutrition priorities, food production and consumption patterns, sociocultural influences, food composition data, and accessibility, among other factors (FAO, 2019).

However, FBDGs also have the ability to help consumers and send clear signals throughout the food system with regards to land use, production, and consumption (Mason & Lang, 2017, p. 267) and can translate ideas of sustainability into foundational policy and institutional changes catered to a country's political will. Based on the United Nations' 2016 global review, only four countries (Germany, Brazil, Sweden, and Qatar) at that time explicitly referenced or took into account environmental factors of food within their main messaging (2016, p. 17). Other countries have attempted to include sustainability messaging (Australia and the United States) but have failed to achieve this goal without governmental support (FAO, 2016, p. 17). Meanwhile, countries like the United Kingdom, France, Nordic countries (Estonia, Finland, Denmark, Iceland, and Norway), and the Netherlands do not explicitly identify sustainable diets in their FBDGs but do include supporting dietary guideline documentation combining health and sustainability considerations (FAO, 2016, p. 17).

While each guideline varies country to country, the majority of the aforementioned guides include messaging that is consistent with most scientific reviews which point to the high environmental impact of meat and dairy, as well as recommend reducing intake or eating meat in moderation. Other messages involving consumption include (but are not

limited to): reducing meat intake, cutting down on food waste and plastic packaging, and consuming locally. Sustainable dietary guidelines can be considered as a necessary component of twenty-first century food policy as they provide an essential first step, and clear direction as to how people should and could be eating at the population level that is mutually benefitting both human and environmental health (Mason & Lang, 2017). In their transition towards greater sustainability, food guides can be considered as one ‘solution’ to public health concerns as they combine both health and environmental considerations.

### 2.3.2 *Canada’s Food Guide*

Health Canada, the federal department responsible for developing and implementing policy on health issues, is also responsible for the national food-based dietary guideline. Evolving from prescriptive diets to the current 2019 version, Canada’s Food Guide is a strategic tool that communicates dietary guidance to the general public, to health professionals, and to institutions and industry, and sets a country-wide standard for healthy eating for Canadians. It serves as a basis for nutrition education, meal planning, and policy across government and multiple sectors of society. The food guide first circulated nutritional information in 1942 with *Canada’s Official Food Rules*, and Mosby (2014) discusses how the guide was implemented as a wartime response to widespread malnutrition and food rationing measures. The food guide, alongside other governmental measures, was set out to “transform Canadians’ dietary habits through a range of both voluntary and coercive means” (Mosby, 2014, p. 5) and “tended to mirror the interests of Canada’s main domestic agricultural producers” (Mosby, 2014, p. 45).

Since then, new versions have been developed to translate nutritional science into dietary guidelines written for the public (Bush & Kirkpatrick, 2003), and the guide has undergone eight different iterations. However, modern iterations of Canada’s Food Guide have received a fair

share of criticism including encouraging Canadians to eat too much (Kondro, 2006), the guide as being inadequate at addressing disparities that affect more vulnerable groups (Anderson, Mah & Sellen, 2015), and generally, the guide as being confusing and difficult to implement in daily life due to a number of reasons including its rhetoric and a discourse of quantification (Bush & Kirkpatrick, 2003; Mudry, 2010; Rachul, 2016), thus constructing and reproducing the “Confused Canadian Eater” (Amend, 2016). This is consistent with work that indicates that governments often revert to expert advice and information in policy decisions to legitimate them, and also turn inherently political issues, such as food and nutrition, into exclusively technical matters (Hilgartner 2000; Callon, Lascoumes, & Barthe, 2011).

The current food guide is the product of a five-year revision process of its predecessor, *Eating Well with Canada’s Food Guide*, with the goal of revising the food guide to better reflect the scientific evidence on nutrition and meet the needs of various audiences who use healthy eating recommendations. Throughout the revision process, Health Canada held consultations with various stakeholders including the public, the food and beverage industry, academia, health and nutrition organizations, and the public sector (IPSOS, 2016; Corporate Research Associates; 2017; Health Canada, 2018). Where in the past it was difficult to say definitively how much influence industry had on the final version of food guides (Amend, 2016), this time around Health Canada deliberately prevented officials from meeting with lobbyists after years of criticism. The department also indicates that the 2019 version of the CFG was designed with flexibility in mind, including tips for healthy eating habits, and recommending a variety of food choices. Most notably, the guide moves away from making recommendations based on number and size of servings in an effort to address some of the concerns raised about previous iterations (Health Canada, 2019). While some scholars have written on the unique opportunity that Canada

had to integrate sustainability principles into the guidelines and advance policy coherence between sectors when updating the guide (Seed & Rocha, 2018), it remains unclear in the current research to what extent, if any, that the latest iteration of the guide addresses concerns over sustainability and climate change. My thesis aims to address this gap.

## **Chapter 3: Theoretical Framework and Methodological Approach**

In the preceding chapter, I reviewed the origins of climate policy in Canada, the symbolic storylines that climate change is often reduced to, as well as expertise in sustainable diets and Canada's Food Guide, to situate my work within a broader social and historical context. The present chapter is divided into two main sections. The first outlines the theoretical framework used to structure my analysis and provide me with a grounded heuristic, and the second outlines the methodological approach selected to investigate my research questions.

### **3.1 Theoretical Framework**

To explore how food, sustainability, and climate change are discursively articulated together in the CFG and how the relationship between citizens and government is articulated in the food guide, theoretically, I rely on bodies of literature that provide conceptual insights into discourse, power, and governance. My study draws on a number of analytical frameworks surrounding discourse and power – Foucauldian interpretations, argumentative approaches to discourse, and critical discourse analysis – to develop my own unique approach. Further, I draw on an additional concept of ecological modernization to develop an understanding on how policy making related to environmental matters is done through a lens of restructuring society, which lends insight into what the broader implications are of this research.

#### *3.1.1 Defining Discourse*

While used in a range of meanings, the term “discourse” can vary from everyday discussion with others to an “ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices” (Hajer & Versteeg, 2005, p. 175). My thesis is primarily concerned with the latter and how discourse can represent “knowledge about what goes on in a particular

social practice, ideas about why it is the way it is and what is to be done [...] and why these are legitimate but also reasonable ways of acting in the world” (Machin, 2013, p. 352). My understanding of discourse is one that is grounded in an underlying assumption that social practices and language shape one’s view of the world and reality, and that each discourse “rests on assumptions, judgements, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements” (Dryzek, 2013, p. 10). My forthcoming analysis, therefore, sets out to trace out and illuminate discursive regularities, and then identify the relations between discourses and other social elements such as power, ideologies, and institutions, to explain and evaluate how these texts reflect and create contemporary social, economic, cultural, and political realities.

### *3.1.2 Foucauldian Interpretations of Discourse and the Concept of Governmentality*

Given the plurality of discourses, in a Foucauldian interpretation, emphasis is placed on a ‘discursive order’ that can be illuminated to show the “regulated discursive practices through which objects are constituted as communicable entities in a given society” (Hajer, 1995, p. 48). With the intent to shed light onto ‘micro-powers’ that bring about transformation, this interpretation of discourse is not just concerned with a set of signs, but also “internal rules that make discourses function as a structure to behaviour” seen as both enabling and constraining communication (Hajer, 1995, p. 48). In this regard, discourses construct ‘truths’ about objects, subjects, and social realities (Leipold, Feindt, Winkel & Keller, 2019, p. 447) and imply exclusionary systems. These systems work in the following way:

[they] authorize certain people to participate in a discourse; they come with discursive forms of internal discipline through which a discursive order is maintained; and finally, there are also certain rules regarding what conditions under which a discourse can be drawn upon (Hajer, 1995, p. 49).

In other words, under this framework, discourses enable and constrain how political entities and societies understand and act upon certain phenomena as questions or arguments are impossible to raise in certain cases. Discourses do not simply mirror social reality but constitute a way to exercise power.

Power, in this discursive framework, does not lie in an institution per se, but is defined relationally referring to the way in which “institutions and actors are implicated in discourse (in which inequalities, disequilibria, divisions, and other categories are defined)” (Hajer, 1995, p.49). Here, then, discourses have the ability to embody power within a network of institutions, practices, procedures, and techniques in the way that they “condition the perceptions and values of those subject to them, such that some interests are advanced, others suppressed, some people made more compliant and [others more] governable” (Dryzek, 2013, p. 10). For Foucault, as Scott and Marshall (2009) explain, government refers to the following:

a complex set of processes through which human behaviour is systemically controlled in ever wider areas of social and personal life [...] and is not limited to the body of state ministers, or even to the state, but permeates the whole of society and operates through dispersed mechanisms of power (p. 294).

Further drawing from Foucauldian theories, the concept of governmentality helps to “identify and qualify the emergence of the modern deployment of power along three axes: institutional centralization around governmental agencies, the emergence of new instrumental knowledge and the diffusion of power effects over society as a whole” (Hajer & Versteeg, 2005, p. 180).

Governmentality, as a contribution to discourse analyses of environmental politics, exposes:

the way in which responses to environmental crises should also be explained in terms of the particular ideas about the respective responsibilities of government and citizens [...] in many domains of the broader ‘politics of life’ one can see how the failure of the environmental politics of the welfare state (e.g. ‘science-based policy making’) now lead to a shift in responsibility whereby the state ‘empowers’ the individual citizen to make choices based on good information provided by the state (Hajer & Versteeg, 2005, p. 180).

Overall, my study employs this conceptualization of discourse in seeking to explain how the relationship between citizens and government is articulated in the food guide. Additionally, it is used to help distinguish how practices (such as sustainable food consumption) come to be, how they function, and how power is dispersed.

### *3.1.3 An Argumentative Approach to Discourse*

Rooted in neo-Foucauldian notions of discourse, but in a different vein of analysis, Maarten Hajer proposes an argumentative approach to discourse analysis (ADA). The argumentative approach to discourse analysis allocates a role to the discoursing subjects and posits that social action originates in human agency which is enabled and constrained within social structures; social reality is then maintained and reproduced – with room to adjust, transform, resist, and reinvent – through interaction between agents and structures. Differing from a Foucauldian interpretation of discourse analysis, focus is placed on the level of discursive interaction and Hajer argues that these interactions can alter or create new meanings, positions, and identities (1995, p. 59). With this approach to discourse analysis, politics is conceived as a struggle for discursive dominance in which actors try to secure support for their definition of social reality, within the context of existing institutional practices (Hajer, 1995, p. 59). In order to achieve said dominance, the conditions of discourse structuration (determined by credibility, acceptability, and trust) and discourse institutionalization (when discourse is translated into institutional arrangements) must be met (Hajer, 1995, p. 61).

In ADA, the concepts of storylines and discourse-coalitions are presented in order to analyze inter-discursive communication. As described by Hajer (1995), storylines are “narratives on social reality through which elements from many different domains are combined and that provide actors with a set of symbolic references that suggest a common understanding” (p. 62).

Furthermore, storylines are considered as the “discursive cement” which creates communicative networks among actors with varying perspectives (Hajer, 1995, p. 63); helping to not only construct a problem but to act as a device with which actors can position themselves in relation to the problem. Storylines, ultimately, act as the “vehicle of change and are analysed in connection to the specific discursive practices in which they are produced” (Hajer, 1995, p. 72) as they determine the interplay between physical and social realities. In connecting different domains of knowledge together, storylines suggest coherence across an array of discursive fields, are able to reorder understandings of policy problems, and offer important forms of agency for different actors.

Meanwhile, discourse-coalitions are an ensemble of storylines, actors, and discursive practice (Hajer, 1995, p. 65). Discourse-coalitions are formed “if previously independent practices are actively related to one another, if a common discourse is created in which several practices get a meaning in a common political project” (Hajer, 1995, p. 65). Here, the combination of factors (storylines, actors, and practices) create unifying ideas that are attractive to groups of actors. While not all coalition members need to share similar beliefs, they share a common storyline which suggests common understanding. In these analyses, “the political power of a text is not derived from its consistency but from its multi-interpretability” (Hajer, 1995, p. 61) which proves useful in being able to understand and work together on complex issues such as climate change. In this research, I employ storylines and discourse-coalitions as conceptual frameworks, but also as methodological considerations. My study aims to primarily discern the storylines expressed within the food guide and its related documents. However, inferring from the different bodies of knowledge which come together in the creation these documents and

storylines, I conclude that discourse-coalitions have been formed and a more robust analysis of these coalitions may provide fruitful avenues to continue this research.

### *3.1.4 Critical Discourse Analysis and its Practicality*

Another influential approach to discourse analyses is critical discourse analysis (CDA) which “evaluates the social construction of reality and suggests how discursive texts and practices should be reformed” (as described in Merrigan, Huston, and Johnston, 2012, p. 176). As an influential writer on CDA, Fairclough (2013) describes this approach as a “social analysis into language studies and contributes to critical social analysis a particular focus on discourse and on relations between discourse and other social elements” (p. 178). Based upon the assumption that “language is an irreducible part of social life, dialectically interconnected with other elements of social life” (Fairclough, 2003, p. 2), Fairclough’s approach is both a theory of, and methodology for, analysis of discourse “understood as an element or ‘moment’ of the political, political-economic and more generally social which is dialectically related to other elements/moments” (Fairclough, 2013, p. 178). This approach is a social analysis which is normative and explanatory, in that the goal is not to simply describe existing realities but also to evaluate them. This approach “assesses the extent to which they [realities] match up to values that are taken (contentiously) to be fundamental for just or decent societies” (Fairclough, 2013, p. 178) as well as seeks to explain them by showing them “to be effects of structures or mechanisms or forces which the analyst postulates and whose reality s/he seeks to test out” (Fairclough, 2013, p. 178).

For this study, CDA helps to provide an emphasis on practical outcomes in order to couple theoretical and practical considerations, in part through the integration of practical argumentation and recontextualization. As Fairclough (2013) discusses, policy analyses which

include a focus on practical argumentation may be advantageous in bringing a coherent approach to problem–solution relations to enhance the strength of the analysis (p. 183). Practical arguments that scholars have previously included in work integrating argumentation theory with CDA (Fairclough & Fairclough, 2011) include the following elements: a value premise, a goal premise, a circumstantial premise, a means–goal premise, and a claim (or conclusion). These elements are accounted for in the following ways:

Existing states of affairs are represented and problematized in particular ways, in the Circumstantial premise. Possible and desirable alternative future states of affairs are construed in the Goal premise, in accordance with representations in the Circumstantial premise and with underlying values and concerns (Value premise). The Means-Goal premise has a conditional form: if a course of action A is pursued, it will or is likely to take us from the existing problematic state of affairs C to the desirable future one G in accordance with values V. The Claim advocate pursuing a particular course of action. [...] The goals (Goal premise) are advanced as solutions in the sense of future states of affairs that can and should replace existing states of affairs (Fairclough, 2013, p.183).

With regards to this thesis, this structure of practical reasoning allows for an examination of communicative strategies embedded within the food guide and its documents, and how they (storylines) emerge – this view “captures the necessary ‘chaining’ of actions oriented towards a certain desirable goal that makes it possible to speak of a ‘strategy’ rather than a random sequence of unrelated actions, and shows how a goal, once attained, can become a means towards a further goal” (Fairclough & Fairclough, 2011, p. 248). Each of these elements were considered in the coding process, that is elaborated on in section 3.2.2.

In indicating some of the more robust ways critical discourse studies embrace meaning making in multimodal communication, Machin (2013) additionally offers that the concept of recontextualization is a useful way of examining the discursive process of transforming social practices. Discourses may be recontextualized, so that they are “not represented through actually giving a clear account of events, nor by logical argument, nor by a reasonable assessment of

information, but through a process of abstraction, addition, substitution, and deletion” (Machin, 2013, p. 352). Through this process, we ask which semiotic resources are deployed in the recontextualization of elements such as participants, goals, behaviours, and values, while considering the context. For the purposes of this thesis, recontextualization adds a layer of analysis to form what Van Leeuwen and Wodak (1999) call “scripts” – a representation of a certain kind of context-specific knowledge about a social practice in question, a certain vision of what goes on in that social practice, coupled with, and indissolubly fused to, a certain set of ideas as to why the practice is the way it is (p. 99).

### *3.1.5 Ecological Modernization*

A dominant way of theoretically conceptualizing how environmental matters are managed by institutions in terms of policy making is through the lens of ecological modernization. As proposed by Hajer (1995), a general articulation of this approach describes the restructuring of modern, industrial societies to account for issues of environmental degradation. In brief, ecological modernization describes an approach to environmental protection where environmental problems can be solved through their integration into policy arrangements in such a manner that “the environment” and “the economy” are mutually reinforcing – or, seen as a “positive-sum game” (Hajer, 1995, p. 3). For instance, carbon pricing can be seen as an exemplary case of ecological modernization policy discourse as it aims to internalize the costs of climate change on the economy while simultaneously reducing greenhouse gas emissions.

From the late 1970s onward, ecological modernization began to transform perceptions of environmental problems and, as Hajer (1995) outlines, ecological modernization was propelled into policy discourse as a product of a coalition of forces which were wed through a common

vocabulary and way of framing the ecological crisis. Hajer notes divisions in interpreting ecological modernization discourse – from it being conceptualized and implemented by experts or, opposingly, favouring democratic social choice over dominance of policy experts – but ultimately suggests a more suitable way forward with regards to institutional change is approaching ecological modernization as a reflexive, societal inquiry. In this interpretation, there is possibility to strengthen the appeal of ecological modernization as “a common political project for societal change. Ecological modernization could become more of a social event which is not imposed on people but is perceived as a project in which people can recognize a role for themselves and actively take part” (Hajer, 1995, p. 291). Here, the goal is to provide a platform for inter-discursive communication and encourage public debate in the process of clarifying policy options for modern development in hopes of making it more reflective and inclusive.

### *3.1.6 Summary*

The identification of how climate change, environmental sustainability, and food are articulated together in the CFG and how the relationship between government and citizens are articulated within the guide requires robust knowledge of discourse, power, and governance. As “proper analytical research should focus precisely on the illumination of the smaller, often less conspicuous practices, techniques, and mechanisms” (Hajer, 1995, p. 47) to determine how large institutional systems work, my research utilizes several conceptual frameworks in complementary ways to distill nuances of how discourses operate within the CFG and how they, more broadly, shed light to institutional operations and the roles of government and citizens.

## **3.2 Methodological Approach**

My project is a mixed analytical discourse analysis that draws from the work of scholars using Foucauldian, argumentative, and critical approaches to discourse analysis. In particular,

my methodology is primarily informed by Maarten Hajer's and Norman Fairclough's analytical frameworks as these scholars illustrate how I can approach policy discourse. As my theoretical framework illustrates, there are many complexities to discourse and thus I have adapted my own unique methodological approach to policy discourse through multiple layers of analysis. By engaging with multiple analytic methods, I benefit from greater rigour and trustworthiness of my findings (Golafshani, 2013), and using more than one source has the ability to enrich the range of subjective viewpoints available to me (as discussed in Merrigan, Huston, and Johnston, 2012, p. 77). My adaptation of discourse analysis can be seen as a "complete package" (Jørgensen & Phillips, 2011) entwining both theory and method. As approaches to discourse analysis often rest on their conceptual premises, the theoretical approach shapes the methodology, which in turn shapes the specific techniques used for analysis. In this way, the conceptual underpinnings of this research are also employed as methods for data analysis to examine and assess the approaches that are used by the Canadian federal government to discuss climate change through food consumption guided by the latest version of the CFG.

### *3.2.1 Data Collection and Selection*

This study's data set consists of texts intended to represent the Government of Canada's communication of the food guide and related documents. I initially started with Canada's Food Guide itself and added other texts as I became aware of additional website pages and publications in embedded links and text references of documents that were collected. I collected a total of 52 documents of varying lengths (between 1 and 69 pages) from the relevant government departments' online resources. Documents ranged from the 2019 iteration of the Canadian food guide itself, to accompanying resource materials including various tips for healthy eating, to documents outlining the consultative process in developing the guide. These

texts provide context, relevant background information on the development of the food guide, as well as recommendations that the Government of Canada is promoting as a reasonable way of eating in this moment in time. In addition, I examined other policy documents, reports, and government publications related to Canada's first-ever food policy initiative, *The Food Policy for Canada*, and Canada's strategy for healthy eating. These documents informed the new iteration of the guide and are meant to work in unison with the CFG as part of broader whole-of-government initiatives to assist in guiding food-related decision-making and actions from various actors.

Document selection was based on the criteria that documents must have explicitly been created as part of the 2019 iteration of Canada's Food Guide, or are a part of an accompanying suite of online documents to help guide food consumption decisions, were part of the development of the guide (including consultation reports), or is a document that is used in conjunction with the food guide and the Government of Canada's *Healthy Eating Strategy*. Originally, 58 documents were collected but after initial analysis I excluded 6 documents from the sample as they did not seek to discuss food consumption specifically (including documents solely addressing physical activity) or were more cursory information rather than showing evidence that they explicitly informed the revision of Canada's Food Guide (including scientific reports on sodium intake and marketing to children).

### 3.2.2 *Data Analysis*

All documents were imported into and analyzed using NVivo 12 (QSR International), a program for qualitative and mixed methods research analysis. Once all of the documents were inputted into NVivo, I employed an initial process of open coding. In this stage, I identified significant or distinct words, phrases, or segments of the documentation and assigned them

conceptual labels that represented discrete words, actions, and perceptions. Treating this step as an inductive process, the initial open coding revealed key terms or conceptual themes that were emerging from the data rather than establishing a codebook before the analysis began. While primary research attention was concerned with the textual content of the documents, given the visual transformation of the 2019 food guide from the previous iteration, I noted images and explored them in a cursory manner separate from the coded analysis. Mentions of images are used to complement the analysis in Chapter 4.

After the first round of coding, I reviewed the codebook for clarity and usefulness, and I removed or altered redundant codes (due to minimal references and/or similarity to other codes). I then identified main topical categories from the original key terms and themes. With the use of the coding tools provided in NVivo, compiling the data was simple and helped determine the categories from the subcategories. Table 1 contains all categories, subcategories, and corresponding descriptions that were the result of this open coding process.

Based on these categories, I proceeded to follow the process of open coding with axial coding, which is a process that aims to relate codes of data to each other (Strauss & Corbin, 1990). In this stage, I sought to make possible connections between and within the original concepts from the open coding process by asking how they were related to one another. This was an intensive and deductive process which required me to hypothetically relate subcategories to categories by means of statements denoting the nature of the relationship, and then verify these hypotheses with the data. For example, I hypothesized that the subcategory of “plant-based” would be related to categories of both “environment” as well as “health” as plant foods generally contribute fewer GHG emissions and the consumption of greater quantities of plant-based foods are often cited as part of sustainable diets in order to optimize human health and lower risks of

disease (as discussed in my literature review). I had also hypothesized that the subcategory of “plant-based” would be related to the category of “cultural values” as many faiths and cultures customarily practice vegetarian diets (Caplan, 2008; Nath, 2010). While the latter assumption was not verified in the data as there were no explicit mentions of specific cultures or faiths in conjunction to consuming “plant based”, the former assumptions were verified through explicit mentions within the data linking the term “plant-based” with environment and health.

To elaborate, my methodology considers subcategories and categories to solidify into illustrative narratives (which differ from storylines) once my hypothesized nature of the relationship was expressed within the content of the texts themselves (through documents titles, phrases, its full contents, etc.). For example, the subcategory “plant-based” and the category “environment” solidify in text as an illustrative narrative through Health Canada describing that “an eating pattern that is higher in plant-based foods and lower in animal-based foods can decrease the negative impact of food on the environment” (Health Canada, “Healthy eating and the environment”, n.d., para. 3). This example represents an environmental narrative, as it denotes that greater consumption of plant foods than animal-based foods can have a positive impact on the environment.

Once multiple, varied narratives could be grouped together, I considered them to give access to the broader storylines that are commonly understood by several actors, acting as “vehicles for change” (Hajer, 1995, p. 72), and with regards to my research, are concerned with elements of sustainable diets and shifts in food consumption. The storylines I draw upon have fewer overt occurrences in the documents and may have less obvious effects on discourse, but instead, have a kind of gravity that reshapes how things are said and unsaid.

Using this process, I was able to distinguish some of the broader storylines to which food, climate change, and environmental sustainability are being explicitly linked together by connecting codes which occurred in the “environment” category between and within other categories across the documents. In an effort to establish the most dominant storylines across my corpus, I conducted a last review by revisiting my documents to record instances of the illustrative narratives contributing to each storyline, counting only distinct storylines once per document (as to capture the evolving frequency across the documents rather than within the documents).

While identifying the discursive features of environmental storylines is a demanding endeavour, especially since emblematic environmental issues are expressed through diverse storylines, my research aims to highlight how food, climate change, and environmental sustainability are discursively wed together in these documents. It is important to note that, in choosing this classification method, there is a degree of reduction and closure that occurs. But, as Hajer (1995) notes, different discourses can find affinity or are complimentary to one another (p. 67). In an attempt to remedy some of these closures, in the chapter outlining my findings, I offer additional commentary of how some narratives found within the guide can be representative of broader storylines perhaps influencing the guide, and may be drawing attention to the integrated nature of environmental injustices across other questions including race, colonialism, gender and sexual difference, poverty, and other ethical domains. In doing so, my goal is to move beyond a narrow focus, or siloed position, that compartmentalizes environmental problems to demonstrate ways in which environmental politics are interwoven with social justice.

The findings from this analysis are presented in the next chapter. I present the central storylines composed within the guide that integrate the narratives of food, climate change, and

environmental sustainability together explicitly as a result of the coding. I begin each storyline analysis with an account of how they achieve discourse structuration and institutionalization, thus securing discursive dominance, which is assumed from documents that influenced the food guide's construction in the context of existing institutional practices. In this way, my aim is to demonstrate how different groups of actors have come together (or are inferred to have come together) to create the unifying ideas that have achieved discursive dominance. From there, my analysis reveals the narratives that are combined to form the specific storylines, pulling illustrative examples from the texts.

**Table 1: List of Categories and Subcategories**

| <b>Categories</b>           | <b>Description</b>  | <b>Subcategories</b>  |
|-----------------------------|---|---|
| Environment                 | Used when text mentions food consumption, food systems, or food practices which link to environmental sustainability or suggests link to climate change/climate policy  | Climate Change, GHG Emissions, Food Waste, Natural Resources, Plant-based, Organic, Reusable  |
| Health                      | Used when text connects diet or particular behaviours with a person’s health or wellness, discusses the nutritional values of eating particular foods, provides nutritional guidance for targeted audiences, or discusses food safety | Nutrition, Food Safety, Wellness, Physical Activity, Plant-based, Behavioural Practices, Dietary Guidance for Targeted Audience   |
| Cultural Values             | Used when text references or suggests cultural associations with food consumption   | Traditional Foods   |
| Socio-Economic Conditions   | Used when text connects food consumption to socio-economic conditions, addresses lower socio-economic conditions as a barrier to eating healthily, or suggests the need to lower costs  | Food Insecurity, Food Security, Affordability, Accessibility  |
| Social Values               | Used when text references social values attached to food or food consumption  | Taste, Animal Welfare, Food Skills  |
| Economy                     | Used when text references the Canadian economy, discusses the Canadian food sector, “Canadian food”, economics related to food consumption and production, or jobs and/or job creation  | Jobs, Food and Agriculture Sector, Canadian Economy, Exports, Food Supply   |
| State Policy and Governance | Used when text describes actions, processes, mandates, commitments, and decision-making coming from or in collaboration with the nation state   | Evidence-Based Process, Mandate, Consultation, Funding, Programs, Influence from Expertise, Promotional Campaign, Community-led Project, International Commitment, Collaboration, Whole-of-Government |
| Function                    | Used when text explicitly outlines the purpose of Canada’s Food Guide   | CFG as information sharing, CFG as educational, CFG as promotional, CFG as instruction, CFG as policy   |

## Chapter 4: Storyline Findings

### 4.1 Introduction

In this chapter, I discuss the central storylines that emerged through my coding of Canada's Food Guide and its related documents. My analysis aims to distill the broader storylines which compose the guide and are distributed upon its wider circulation. In doing so, I reveal the dominant narratives the Canadian government uses in attempt to articulate food as linked with climate change and environmental sustainability. From this analysis, the narratives demonstrate that the food guide isn't simply a representation of a single story, but a site of many colliding ones. In particular, this research highlights that specifically in an attempt to articulate food, climate change, and environmental sustainability together in national dietary policy, the Canadian government primarily does so by grouping narratives within what I have established as two main storylines: choosing plant-based and reducing food waste<sup>12</sup>. I also give important attention to one additional narrative, accessing traditional foods, as a way to explore how different discourses can find affinity with one another and represent different interests.

This chapter first proceeds by detailing the prominent storylines and phrases that compose the guide. I describe how despite some tensions with the food industry over the integration of the term "plant-based", the 2019 iteration of the food guide unifies messages of health, the environment, and socio-economic conditions into a "choosing plant-based foods" storyline to support a shift in food consumption towards more environmentally-friendly diets. The federal government's communication over "reducing food waste" is particularly persuasive, overtly demonstrating a push for behavioural changes which is sketched in the second storyline.

---

<sup>12</sup> For the remainder of this thesis I interchangeably use "choosing plant-based foods", "choosing plant-based" and "plant-based" to refer to the first storyline, and "reducing food waste", "food waste reduction" and "food waste" to refer to the second.

Finally, I spotlight how the food guide evokes questions of cultural differences alongside climate change in section 4.4. Here, I reveal that while the texts may not explicitly discuss cultural or regional differences in food consumption across the country with regards to how they may or may not be impacted due to geographical location or other environmental factors, they do produce a pathway to discuss Indigenous food sovereignty. To such a degree, a narrative of “traditional foods” is one that is less commonly dispersed throughout the guide and its related documentation, but an examination of this narrative remains valuable as we can glean important insights into additional ways discourse can be interwoven with other domains of social justice.

In the sections that follow, I introduce the main storylines that I have identified through my coding by first detailing how they are assumed to have formally achieved discursive dominance within the context of institutional arrangements, otherwise considered as the “pre-conditions of the process of discourse formation” (Hajer, 1995, p. 60). This is done through summaries of the public consultations for the food guide and proposed food policy, based on their respective “What We Heard” reports. Rather than critiquing the consultative processes, these sections aim to outline the consultations as they allowed different groups of actors to come together. In this way, the consultative processes (and published institutional documents reporting on the processes) allow access into how the storylines have achieved discursive dominance.<sup>13</sup> I then tease apart the formation of these storylines by providing descriptions of the illustrative narratives of which they are composed of. By referring to specific examples from the texts themselves, my aim here is to demonstrate how specificities of food are being combined into a storyline that aligns food consumption with climate change and environmental sustainability, as

---

<sup>13</sup> As governmental documents only provide readers access to the consultative process from one perspective, additional research could examine the perspectives from different actors that participated in consultations. This is elaborated on in the limitations of this study (section 6.4).

well as signal towards potential shortcomings of these storylines. For the scope of this research, I place primary attention on the dominant ways an explicit relationship between food, climate change, and environmental sustainability are discursively articulated together. It is important to acknowledge that other narratives and storylines are present or are broadly expressed within the guide, such as a relationship between food safety and food consumption, but these are omitted in my presentation of the texts.

#### **4.2 “Choose Protein Foods That Come from Plants More Often” – A Plant-Based Storyline**

As part of its *Healthy Eating Strategy*, Health Canada sought to overhaul the food guide as a means to “help Canadians navigate complex and sometimes conflicting nutrition information” (Health Canada, 2016, p. 3). Part of this revision process included an online public consultation that took place in two phases. Phase 1 occurred in the Fall of 2016 and allowed for consultation on general areas of the CFG identified for review and revision, resulting in 19,873 submissions from an array of stakeholders<sup>14</sup>. The main takeaway from this phase of public consultation was that the then-current (2007) format of the guide was no longer reflective of increasingly varied diets, and resulted in a call for healthy eating recommendations to be expanded to reflect rising food trends, including an emphasis on whole foods and plant-based diets (Health Canada, 2017). The following year, Health Canada began the second phase of public consultations which sought feedback on their proposed guiding principles and recommendations<sup>15</sup>, including the primary recommendation to regularly intake vegetables, fruit,

---

<sup>14</sup> The full list of stakeholders mentioned in the consultation reports included individual members of the general public, health professionals, educators, and representatives from government, food industry (producers, manufacturers, retailers), schools/daycares, research/academia, hospitals/healthcare facilities, private practices and consulting, health and nutrition organizations, and community groups.

<sup>15</sup> The recommendations were created based on an Evidence Review (2015) which examined the scientific basis of nutrient standards, the Canadian context of food consumption, and use of existing guidance at that moment in time.

whole grains and protein-rich foods, especially plant-based sources of proteins. This part of the developmental process of the new guide provides a valuable entry point to outline a discussion over the overall use of the term “plant-based” in the food guide.

Most contributors who submitted feedback during this phase of consultations agreed with the overall approach to eat more plant-based foods, justified by the personal relevancy and applicability to their diets, its opportunity to be a reflection of greater diversity in diets, as well as potential positive impacts on the environment. Additionally, most professionals and organizations favoured the focus to be consuming sources of protein more generally, rather than on separated groupings of meat and dairy as seen in the 2007 version of the food guide (Health Canada, 2018, p. 18). However, some established groups including the food and beverage industry<sup>16</sup> countered this, raising concerns over a shift away from animal-based protein to focus on plant-based protein indicating that Health Canada’s recommendations “should be based on food as a whole rather than their specific nutrients” (Health Canada, 2018, p. 42).

This tension is noteworthy as this doubt echoes criticism of industry influences seen in past guides (Vogel, 2015), but ultimately, these views/concerns are suppressed in the final version of the 2019 guide to favour the shift to plant-based foods (which is consistent with the updated nutritional expertise as per the evidence review). When the new food guide was revealed in January 2019, it demonstrated an explicit endorsement of consuming an increase of plant-based foods at the expense of meat and dairy, as evidenced by the food guide no longer bearing separate “meat and alternatives” and “dairy” categories. Rather, the updated and simplified food guide shifts from a once-confusing layout consisting of numbers and charts, specific empirical

---

<sup>16</sup> This is an important site of inquiry as Health Canada did not meet with food and beverage industry representatives during the policy development for the new guide, but the online public consultation process was open to all stakeholders, inclusive of industry.

and cooking measurements, and specialized terminology (Rachul, 2016) to show an image of a plate with half of it covered with fruits and vegetables, and the other half divided into whole grains and “proteins” with guidance often to “choose protein foods that come from plants more often” (Health Canada, “Eat protein foods”, n.d., para. 2)<sup>17</sup>. Appendix B contains images of both the 2007 and 2019 guides. From this reading of the construction of the guide, I interpret this as a way discourse structuration of the plant-based storyline is achieved as actors (consultation contributors) believe in and live by the subject-positions that the discourse applies for them (Hajer, 1995, p. 59) which fulfills the component of credibility. Further, the position appears attractive to contributors, which accomplishes the requirement of acceptability, and doubt is suppressed which fulfills the requirement of trust. Indeed, upon the release of the food guide, key food organizations that advocate for sustainable food systems had applauded the encouragement to eat more plant-based foods and begin considering the environmental impact of our food choices (Food Secure Canada, 2019).<sup>18</sup>

With this in mind, in the following sections I will demonstrate how this new discourse is being reflected in institutional documents. Achieving both discourse structuration and discursive institutionalization<sup>19</sup>, this narrative to be consuming more plant-based foods is foundational in the 2019 iteration of Canada’s Food Guide to articulate food, climate change, and environmental sustainability together. When coding the data set, I found 19 of the 52 texts to distinctly utilize the phrase “plant-based” when prescribing a way of eating. I argue that through this storyline,

---

<sup>17</sup> It is beyond the scope of this thesis to discuss at length the visual transition from the 2007 Canadian food guide to the 2019 iteration, however, Truman (2018) provides a thoughtful analysis of key visual attributes of food guide graphics.

<sup>18</sup> Food Secure Canada also noted that the 2019 iteration of the guide opens the door to draw attention to address important challenges such as the link between poverty and food insecurity with diet and health, as well as environmental and cultural dimensions of food choices. In this way, the food guide can be seen as both an important step in the right direction as well as an opportunity for future improvements.

<sup>19</sup> Discourse institutionalization occurs when discourse is translated into institutional arrangements, inclusive of policies.

these texts work to encourage users of the food guide to be choosing to eat a greater amount of plant-based foods on the premise of these foods offering significant health benefits, providing positive impacts on the environment, and as being a more affordable way of eating for the average Canadian. In unifying these frames of health, environment, and socio-economic conditions to a commonality of a “plant-based” storyline, it brings focus towards a necessary shift required in food consumption.

#### 4.2.1 A Health Narrative

*“The regular intake of plant-based foods – vegetables, fruit, whole grains, and plant-based proteins – can have positive effects on health.”*

A health frame<sup>20</sup> is the most prominent narrative within the plant-based foods storyline. Of the 19 texts coded for the plant-based storyline, 14 documents include the pithy recommendations to either “consume plant-based more often” or “choose protein foods that come from plants more often” as a means to make healthier food choices. On a rudimentary level, this is evidenced by the titles of the documents of which the “plant-based” phrase and aforementioned recommendations surface, including: “Healthy Eating Strategy”, “Healthy Food Choices”, “Healthy Eating at Home”, and “Make Healthy Meals with the Eat Well Plate”. For example, the basic guidance on how to create a healthy meal is broken down into three steps, including step 3 to include protein foods; “Choose protein foods that come from plants more often” (Health Canada, “Make healthy meals with the Eat Well Plate”, n.d., para. 1). Some documents also suggest recommendations which associate plant-based options as healthier options: “fortified plant-based beverages are also healthy drink options” (Health Canada, “Healthy eating when pregnant and breastfeeding”, n.d., para. 9). The prominence of a health

---

<sup>20</sup> I use the terms “frame” and “narrative” interchangeably in this chapter to describe the elements from different domains that are composing the main storylines.

frame is in many ways unsurprising, given that the core of food-based dietary guidance is intended to be used as a public health tool (FAO, 2019).

The Government of Canada also promotes the health frame through their simplified presentation of the scientific evidence in favour of plant-based foods, citing lower risks of disease (cardiovascular disease, colon cancer, type 2 diabetes) as a result of higher intakes of plant-based foods. This evidence is often presented in an objective manner, where the suggestions are reflective of representing current evidence of nutritional science as per Health Canada's evidence review (Health Canada, 2015; Health Canada, 2018) to legitimate the advice being given.<sup>21</sup> This is consistent with literature indicating that nutritional scientism<sup>22</sup> is established and reinforced by certain authorities, and the public is expected to respect this scientific authority (Mayes & Thompson, 2015). Promoting plant-based foods as a healthy choice to prevent these potential illnesses echoes common health promotion strategies to prevent disease through targeted interventions to increase awareness among individuals (Carey, Munter, Bosworth, & Whelton, 2018; Yu, Malik, & Hu; 2018)<sup>23</sup>.

While perhaps negligible, it is also interesting that sometimes the guideline documents juxtapose the evidence supporting plant-based nutrition alongside a statement that animal-based foods are nutritious (which is not overtly supported by the evidence or evolving expertise outlined in the documents). For example, in the dietary guidelines for health professionals and policy makers, it indicates that “many animal-based foods are nutritious” but the guideline ultimately emphasizes an increase in consuming more plant-based foods as “the regular intake of

---

<sup>21</sup> Expertise is presented in a fixed, objective manner in the documents that help circulate the guide. However, when looking at the documents which have role in composing the guide (ie: the evidence reviews), nutritional evidence is viewed as something that is constantly evolving.

<sup>22</sup> While it can be defined in many ways, scientism is concerned with an uncritically deferential attitude towards science and an inability to acknowledge its limitations.

<sup>23</sup> More broadly, this fits under an understanding of social marketing as an effective health promotion strategy. For example, see Kotler & Zaltman, 1971.

plant-based foods—vegetables, fruit, whole grains, and plant-based proteins— can have positive effects on health” (Health Canada, “Canada’s Dietary Guidelines for Health Professionals and Policy Makers”, 2019, p. 10) and continues to mention that eating patterns inclusive of animal-based foods should emphasize more plant-based foods (Health Canada, “Canada’s Dietary Guidelines for Health Professionals and Policy Makers”, 2019, p. 10). Despite the overall increased promotion of plant-based food consumption within the documents, and consensus knowledge over its health benefits, in including messaging of the nutritional value of animal-based foods, these juxtapositions could be viewed as a way that the political nature of the food guide can come to the foreground in the new iteration of the food guide, as an attempt to please all stakeholders. Perhaps more importantly, these juxtapositions assist in normalizing a shift towards consuming more plant foods within a context of compromise and incremental adoption. Through a message of compromise, the Canadian food guide recognizes current dietary patterns and promotes eating goals in a way that is more realistic and feasible for many. Regardless, in these ways, the food guide subtly advocates for consuming a diet consisting of more plant-based foods by associating health with a message of “plant-based”.

#### 4.2.2 *An Environmental Narrative*

*“An eating pattern that is higher in plant-based foods and lower in animal-based foods can decrease the negative impact of food on the environment.”*

A second narrative constructing the plant-based foods storyline is that of environmental discourse, where emphasis is placed on environmental impacts that our diets can have. While not as explicitly expressed across the documents compared to the health frame (n = 2 documents), when it does appear this narrative typically places focus on establishing that there is an important connection between plant-based food consumption and the environment. In particular, this narrative explicitly mentions that there is a greater positive impact with regards to environmental

sustainability, and this is supported by relevant expertise. Broadly speaking, the relevant expertise that the government department cites in these scenarios are peer-reviewed systematic reviews from public health experts, rather than of climate science.<sup>24</sup> By privileging the expertise from the field of public health rather than consulting experts from a wider variety of fields, this may signify that the food guide is still primarily considered as a tool for improving public health rather than a tool which actively tries to translate ideas of sustainability into foundational policy. Indeed, these documents generally maintain a high-level overview, indicating that “an eating pattern that is higher in plant-based foods and lower in animal-based foods can decrease the negative impact of food on the environment” (Health Canada, “Healthy eating and the environment”, n.d., para. 3) and stress that “there is evidence supporting a lesser environmental impact of patterns of eating higher in plant-based foods and lower in animal-based foods” (Health Canada, 2019, p. 15).

While in these cases the discourse does not specifically link consuming plant-based foods and/or plant-based proteins in the context of lowering greenhouse gas emissions<sup>25</sup>, when presenting the environmental significance of food, claims are made about particular ways plant-based food consumption is related to climate change and environmental sustainability. For example, referring to how, “in general, plant-based foods use fewer resources such as land and water” (Health Canada, “Healthy eating and the environment”, n.d., para. 3). While this is not elaborated on within the texts, indeed, food can have a considerable environmental impact on land use and water pollution and some plant-based foods are often considered to carry a smaller

---

<sup>24</sup> Health Canada cites Aleksandrowicz, L., Green, R., Joy, E., Smith, P., & Haines, A. (2015) and Nelson, M., Hamm, M., Hu, F., Abrams, S., & Griffin, T. (2016).

<sup>25</sup> As outlined in the literature review, overall consensus indicates that eating fewer animal-based foods is shown to reduce GHG emissions in a Canadian context, amongst other positive environmental impacts.

footprint<sup>26</sup>. While there is certainly room for the Government of Canada to discuss in greater detail the connections between food consumption, climate change and environmental sustainability, particularly in outlining the differences in resources used to produce plant-based foods versus animal-based foods, these examples bridge some gaps in connecting the term “plant-based” with climate change and environmental concerns, and support the idea that consuming greater quantities of plant-based foods can have a positive impact on the environment. Potential avenues to consider for the development of future iterations of the food guide could be to work in partnership with Environment and Climate Change Canada in order to expand upon the specific environmental impacts of plant-based foods and environmental rationale for selecting more plant-based food options.

#### 4.2.3 *A Socio-Economic Narrative*

*“Try plant-based protein foods such as lentils, beans or chickpeas, or use barley instead of quinoa. These foods are often lower cost.”*

Lastly, the plant-based foods storyline is established through explicit mentions linking plant-based foods with socio-economic conditions in documents which support the wider circulation of the food guide. While this narrative occurs less frequently than the health frame (n = 2 documents), its aims attempt to provide users of the guide with an approach to healthy eating which is more affordable and, thus, potentially more achievable depending on one’s personal financial circumstances. In turn, this also demonstrates an awareness from the nation state that food consumption is connected to an individual’s socio-economic standing and serves as an attempt to address that reality formally within the new iteration of the guide. Indeed, in Canada, 12.7% of households experienced some level of food insecurity<sup>27</sup> between the years 2017 and

---

<sup>26</sup> This point is further elaborated on in section 4.3.2.

<sup>27</sup> Food insecurity refers to the inadequate or insecure access to food due to financial constraints.

2018, with rates of food insecurity varying across the country depending on location (Tarasuk & Mitchell, 2020).

Overall, the texts that include this narrative generally identify particular plant-based sources of food (often proteins) alongside promotion for their consumption as a means of lowering the cost of eating. For example, one document instructs its readers to “try plant-based protein foods such as lentils, beans or chickpeas, or use barley instead of quinoa. These foods are often lower cost and can make a great meal” (Health Canada, “Adjusting recipes to meet your needs”, n.d., para. 4). It is understood that eating plant-based foods can be a way to eat affordably, and this message is also echoed in documents outlining budgetary advice when trying to eat healthily. In particular, this is evidenced through a separate section of one document titled “Healthy Eating on a Budget” which suggests to “Choose plant-based protein foods more often. Beans, lentils and other legumes are inexpensive protein foods. Use them in your meals several times a week” (Health Canada, “Health Eating on a Budget”, n.d., para. 6).

Both of the documents in which this socio-economic frame is included support the wider circulation of the guide rather than as an explicit consideration included in the development of the guide. This signifies that the affordability of food was not integral in developing the new dietary guidance. Given the lack of explicit consideration for the affordability of food highlights a need for the Government of Canada to be considering in closer detail the rates of food insecurity in the country and the accessibility of food for low-income households to inform policy and elucidate specific changes to foster food security. This critique also echoes other assessments which suggest that the new food guide demonstrates a need to delve further into the question of the affordability of food in Canada in order to create a more equitable food system<sup>28</sup>.

---

<sup>28</sup> See Hamann, S. & Pannu, A. (2019).

If future iterations of the food guide proactively examine affordability considerations while in the development stage, potential gaps between the best available nutritional evidence and accessibility could be made in advance of the circulation of the guide. In this way, useful policy interventions and recommendations that circulate and work alongside the guide could be identified and developed in a manner that still adheres to food guide recommendations. For example, Health Canada could work in collaboration with Employment and Social Development Canada (ESDC), the department responsible for the Government of Canada's *Poverty Reduction Strategy*, to ensure that the guide would inform the creation of adequate social supports in order for Canadians to be able to afford the foods that are recommended by the guide. Regardless, by aligning affordability with plant-based foods, this narrative supports the creation of a plant-based storyline and indirectly advocates for a shift in food consumption that is more environmentally sound.

#### 4.2.4 *Summary of the Plant-Based Storyline*

In sum, the plant-based storyline is a collision of narratives from health, environmental, and socio-economic domains to more broadly discuss how food is discursively articulated with climate change and environmental sustainability. Whether users are concerned with reducing their health risks through their consumption of food, positively impacting the environment, or with the affordability of food, the overarching plant-based narrative of the food guide works as a symbolic reference to shift the consumption of food from more animal-based foods to more plant-based options.

### **4.3 “Food Waste Can Happen at All Levels of the Food Supply System. However, Almost Half of All Food Waste Happens at Home” – A Food Waste Reduction Storyline**

Over the course of 2017, Agriculture and Agri-food Canada held public consultations on the first-ever *Food Policy for Canada*, setting a long-term vision for achieving health, environmental, social, and economic objectives related to food (Agriculture and Agri-food Canada, 2018). In development to guide food-related decisions and actions, the aim of the proposed food policy is to work in conjunction with the food guide and is a site where questions regarding food waste are particularly brought to the foreground. A current key area identified within *The Food Policy for Canada* platform is to reduce food waste in the short term (actionable from 2019-2024). While not as potentially polarizing as shifting dietary practices as seen in the plant-based storyline, the food waste narrative nevertheless achieves discourse structuration and institutionalization.

Noted in the “What We Heard” consultative report, participants viewed the problem of food loss and waste as “a problem of significant environmental, societal, and economic importance – an issue that is relevant throughout the supply chain and for consumers” (Agriculture and Agri-Food Canada, 2018, p. 16). Indeed, fifty-four percent of respondents to the online survey alone selected the option “Reducing the amount of food waste in Canada” as the top priority to address in improving the environmental sustainability of Canada’s food system (Agriculture and Agri-Food Canada, 2018 p. 22). This demonstrates an overall acceptance of the food waste reduction discourse (and attractive policy position), as well as gleans insight into how actors believe in the subject-positions that the discourse applies for them – given an acknowledgement of how they are affected by the problem of food waste, and are a necessary

component for its solution<sup>29</sup>. Additionally, the consultation report discusses that participants possessed a widespread recognition of opportunities for federal leadership in food waste reduction (Agriculture and Agri-Food Canada, 2018 p. 22). In this way, this demonstrates how the discourse of food waste reduction secures the requirements of discourse structuration, as a fulfillment of trust is achieved, given the claims where actors “secure confidence in the author” (Hajer, 1995, p. 59).

The food waste narrative is the second-most prominent in the 2019 iteration of Canada’s Food Guide with regards to articulating food, climate change, and environmental sustainability together – when coding the data, I found 15 texts to distinctly discuss “food waste”. I argue that through this storyline of food waste reduction, brought together through the narratives of environmental discourse, food skills (which was more broadly coded into the category of “social values” during the open coding process), and the economy, these texts push for behavioural changes from individuals.

#### 4.3.1 *An Environmental Narrative*

*“Reducing food waste can combat greenhouse gas emissions, help the bottom line, and reduce grocery bills.”*

The most prominent narrative within the *Food Waste* storyline is that of environmental discourse, where emphasis is placed on mentioning the environmental impacts that food waste has on the environment. Of the 15 texts that were coded for this storyline, 12 documents include messages regarding the environmental implications of food waste. This environmental narrative attempts to create targeted links between food waste and climate change, mainly through describing the relationship food waste has to increased greenhouse gas emissions, wildlife loss,

---

<sup>29</sup> Suggestions during the consultations to address the problem of food waste included educational campaigns for consumers to help reduce food loss.

soil degradation, and wasted natural resources, as examples. Approximately half of these coded documents (n = 8) make specific mention to the relationship between food waste and greenhouse gases to discuss the environmental significance of wasted food.

In these instances, most documents take a more general approach to briefly mention that “when food is thrown out as garbage, it ends up in landfills and can produce the greenhouse gas methane” (Health Canada, “Healthy eating and the environment”, n.d., para. 4) and that wasted food also means “the land, soil and water needed to produce the food were wasted” (Health Canada, “Healthy eating and the environment”, n.d., para. 4). Sometimes documents which have primarily influenced the construction of the food guide note more specific examples of the amount, weight, or economic value of food that is wasted when presenting its environmental significance. For example, in the second consultation report of the food guide, Health Canada considered environmental benefits of their proposed healthy eating recommendations and noted that in 2014, the value of food waste and loss in Canada was at an estimated \$31 billion when discussing environmental implications of the way food is produced, processed, distributed, and consumed (Health Canada, 2018). This differs from documents that are intended for the wider circulation of the guide or its use by citizens, which generally only mentions the high-level relationship between food waste and greenhouse gas emissions. Given how these connections are typically made as a general overview, this narrative operates similarly to the environmental narrative within the “plant-based” storyline; presenting another opportunity for the Government of Canada to discuss in greater detail the connections between food, climate change and environmental sustainability. Nevertheless, by highlighting the negative environmental impacts associated with the act of wasting food, this narrative pushes for behavioural changes to reduce the amount of food that users waste through what could be considered as a ‘solutionist’ approach

in discussing food with climate change and environmental sustainability (which is elaborated on in section 5.1).

#### 4.3.2 *A Food Skills Narrative*

*“Improving food skills may make it easier for Canadians to reduce household food waste.”*

A second narrative to the food waste storyline concerns food skills. Food skills refer to “complex, inter-related, person-centred set of skills that are necessary to provide and prepare safe, nutritious, and culturally acceptable meals for all members of one’s household” (Chenhall, 2011, p. 14). These skills include aspects such as knowledge about food and nutrition, planning (organizing meals, food preparation on a budget), and mechanical techniques required when cooking. While less frequent than the environment frame (n = 9 documents), the food skills narrative works to situate the problem of food waste with one of skill, or a learned practice, positioning food waste as a problem stemming from a lack of training or education. Health Canada notes that there are many reasons why households may waste food but improving food skills can assist in minimizing the amount of waste. As an example, they outline that “developing skills related to meal planning, storing perishable foods properly, and using up leftovers may help minimize waste” (Health Canada, “Canada’s Dietary Guidelines for Health Professionals and Policy Makers”, 2019, p. 37).

Most often in this narrative, the texts include phrases such as “the application of skills, such as planning meals and food purchases can also help decrease household food waste” (Health Canada, n.d., para. 22) and advice to “stick to your [grocery] list to reduce food waste” (Health Canada, “Meal Planning”, n.d., para 3). In such a way, these examples also demonstrate a ‘solutionist’ approach to discuss food with climate change because though the problem of food waste occurs across the food chain, the majority of Canada’s food waste stems from the

household (Value Chain Management Centre, 2014, p.12). In associating the problem of food waste with a routine or taken-for-granted practice (throwing away food at the consumer level), this narrative acts as a way that the Government of Canada attempts to shed light on an environmental problem and advocates for behavioural changes amongst individual users of the food guide.

It is interesting to note, however, that the documents analyzed do not distinguish the differences in waste flows based on types of foods and treats food waste in a more holistic manner. In practice, some foods are considered to be more wasteful than others, partially based on their modes of production. While plant-based foods are generally accepted to be more environmentally benign in comparison to animal-based foods, there can be significantly heavy uses of water and land resources for both kinds of foods. For example, almonds grown in California have a generally higher water footprint compared to other plant crops, such as walnuts and potatoes (Fulton, Norton, & Shilling, 2019). A superficial connection between the environmental implications of food waste and the production and distribution of food is casually mentioned in some documents (as described in section 4.3.1), but the guide fails to consider these nuances in waste flows or offer ways that these pathways can become more climate friendly. Based on these documents, the guide omits important discussion on food waste across the food chain that can also contradict the previous storyline to shift food consumption to be more plant-based, rather than provide information that better informs consumers. As the development of food skills is inclusive of greater knowledge of food, providing additional detail on these waste flows through circulating more informative resources on specific connections between food and waste flows may help facilitate in bridging gaps between the term “food waste” with climate change and environmental concerns, and assist in making consumer choices

of sustainable options more available and accessible. In prioritizing this information, the guide could be used to leverage future development of other relevant policies and regulations that the federal government health portfolio is responsible for, such as food labelling, in order to have a more coherent and consistent approach to tackling the problem of food waste across the whole of government.

#### 4.3.3 *A Canadian Economy and Spending Narrative*

*“We waste more than 11 million metric tons of food every year, worth nearly \$50 billion.”*

The last prominent narrative with the food waste storyline is one of the broader Canadian economy and spending. While this narrative is the least frequent compared to the other narratives in the food waste storyline (n = 6 documents), it’s aims provide users of the guide with information as to how much the problem of food waste costs. An illustrative example that is repeated throughout the texts is the phrase indicating that “more than 11 million metric tons of food are wasted every year – worth nearly \$50 billion” (Agriculture and Agri-food Canada, 2019, para. 1). This is presumably done so as a means to conceptualize the significance of this environmental problem by assigning it an economic value.

Similar to how the practice of framing generally associates climate change with economics, in a manner aligned with notions of ecological modernization, this narrative also acts as a means to reduce the problem of food waste into one of economics. It differs from other environmental/economic symbolic storylines in Canada such as discussion of the North, melting sea ice, and new shipping routes (as elaborated on in section 2.1.1) in that, rather than benefitting from potential economic opportunities that may arise despite an environmental problem, the economy is hindered. In this way, food waste is conceptualized as a new, key problem to be managed by institutions in terms of policy making. While there is overall a limited discussion

within the documents analyzed for this project, it will be interesting to see whether this narrative will be used more prominently in future iterations of the guide, or how it may develop with the finalization of other governmental food policy, such as the *Food Policy for Canada*. Future research could potentially consider the issue of food waste through a lens of ecological modernization and question the extent to which it is or can be situated with climate change discourse.

#### 4.3.4 *Summary of the Food Waste Storyline*

As I have attempted to demonstrate, the food waste storyline is a collision of environmental, food skill, and economic narratives. As a storyline, the phrase “food waste” acts as a reference for users to connections between food and the environment, and attempts to alter behaviours associated with the consumption of food (concerning the purchase, preparation, and disposal of food) rather than of necessarily of what to consume, as seen in the previous plant-based storyline. Additionally, this storyline can perhaps be expressed in such a way to strengthen the appeal of ecological modernization discourse as it insinuates a “common political project for societal change” (Hager, 1995, p. 291) whereby the reduction of food waste can be perceived as a project that people can recognize a role for themselves and take part. In this way, ecological modernization is interpreted as reflexive inquiry and continued communication can encourage debate to clarify potential policy options.

#### **4.4 Questions of Cultural Differences with Climate Change**

*“Access to Traditional Food is Compromised Because of Climate Change and the High Cost of the Equipment”*

A final broad, yet noteworthy narrative found within Canada’s Food Guide to articulate food with climate change and environmental sustainability is one evoking questions of cultural

differences through an emphasis on traditional foods. Traditional or country foods<sup>30</sup> refer to wild-harvested foods such as wild meats, fish, birds, sea mammals, berries, and other plants by Indigenous Peoples as part of traditional food systems (Power, 2008; Skinner, Hanning, Desjardins, & Tsuji, 2013). The importance of traditional foods is underscored by their role in addressing food insecurity among Indigenous populations in Canada (Skinner et. al., 2013), traditional foods providing culturally appropriate and nutritious sustenance, as well as their role in Indigenous Peoples' ability to exercise and implement their rights to promote their food sovereignty (Kuhnlein, Erasmus, Spigelski, & Burlingame, 2013; Grey & Patel, 2015; Coté, 2016). While the term "traditional foods" can also be used in reference to new Canadians' access to their traditional foods (Henderson, Epp-Koop, & Slater, 2017; Lane, Nisbet, & Vatanparast, 2019), this reference does not explicitly appear in any of the documents analyzed.

I consider this "traditional foods" narrative to be a broader reflection of ways the environment can be articulated with food, rather than as a separate, established storyline within the food guide. Based on the sample documents I analyzed, the narrative was not evidenced to have achieved discourse structuration and institutionalization. However, this narrative found within the guide remains an important aspect of the food guide to consider as it could be representative of broader storylines shaping government in Canada, potentially drawing attention to discussion around reconciliation, Indigenous sovereignty, and resurgence; forcing a wider engagement with the state's colonial past and present. Indeed, the federal government has a responsibility to fully implement the Truth and Reconciliation Commission's Calls to Action (2015), which includes a call upon the federal government to acknowledge that the current state

---

<sup>30</sup> First Nations and Métis often use the term "traditional" foods while Inuit often use the term "country" foods. For the remainder of this thesis, I use the term "traditional foods" to signify both.

of Indigenous health in Canada as a direct result of previous Canadian government policies (p. 160).

The relationship between traditional foods and climate change is explicitly expressed thrice throughout the documents analyzed, in that climate change and environmental challenges are compromising access to traditional foods. By articulating traditional foods alongside climate change solely through articulations of food (in)security, the guide avoids a deeper engagement with land in the context of ongoing Indigenous presence, resurgence, struggles for land and sovereignty, and settler colonialism. In this way, it does not attend to Indigenous responsibilities to – and relationships with – land, and other Indigenous conceptions of food sovereignty (Kepkiewicz & Dale, 2019). While these issues are far more complex and wide-reaching than what, perhaps, can adequately be addressed in the food guide, the federal government still bears responsibility to acknowledge these issues given the role the guide can play in influencing other policy programs<sup>31</sup> and the high overall visibility of the food guide as it is the second most downloaded document that the Canadian federal government publishes. In doing so, it could help align the food guide in a suite of solutions for larger transformative changes, facilitate thinking beyond the guideline itself, and cultivate awareness about the complexities of the food system.

While perhaps more tangential findings, as the direct linkages between traditional foods and climate change are limited, the phrase “traditional foods” is included in 10 documents, consisting of messages regarding traditional foods, mainly in relation to the availability of food for Indigenous Peoples, diet quality among Indigenous Peoples, and the cultural significance of traditional foods. In the context of food-based dietary guidance, the inclusion of culturally

---

<sup>31</sup> For example, the Nutrition North Canada program has been criticized as a misguided attempt in addressing northern food insecurity, as it ignored how Indigenous self-determination and environmental protection are necessary to achieve these goals. See Chin-Yee and Chin-Yee (2015).

relevant, traditional foods can contribute to the health and well-being of individuals and communities and improve the consumption of healthier foods that meet dietary requirements (Kuhnlein & Receveur, 2007; Plooy & Hall, 2018). However, by primarily emphasizing symbolic inclusion of cultural representation of Indigenous Peoples via a marker of ‘traditional’, it also reifies problematic narratives.

More generally, the phrases “culture” or “culturally significant” appear across 23 documents. While there is certainly a broader acknowledgement in the food guide documents of cultural values being reflected within food and food practices – for example, the food guide often reflects that “culture and food traditions can be a part of healthy eating” (“Healthy eating habits”, Health Canada, n.d., para.1) – these broad statements within the documents somewhat peculiarly do not attempt to address specific cultural or regional differences in food consumption within the country, nor make connections to the previous two storylines outlined. As discussed in methodological approach (section 3.2.2), I had hypothesized that expressions of “plant-based” would be linked to a specific cultures or faiths, but the guide fails to do so. This can be representative of a particular imagined user that the guide is created for. The lack of discussion over food consumption differences per region is, again, odd and echoes parts of Canada’s climate change history where a perception is that the federal government acts without attending to specificities of other jurisdictions (as elaborated on in section 2.2). Given the uniqueness of Canada and its spatial expanse and geographical-ecological diversity of its places, this is potentially a limitation and could be considered in future iterations of the food guide<sup>32</sup>.

---

<sup>32</sup> In a cursory scan of news articles after the release of the guide, it is evident there are different concerns and challenges depending on region. For example, pulse consumption in Saskatchewan versus country food consumption in Northern Labrador. See Hunter (2019) and CBC (2019).

## 4.5 Summary

This chapter presented the central storylines composed within the guide that integrate the narratives of food, climate change, and environmental sustainability together. Pulling illustrative examples from the texts, I described how the narratives function together to promote a shift in consumption towards more plant-based diets that are considered to be more environmentally friendly and promote behavioural changes in order to reduce food waste. In analyzing these narratives, I also considered what information is left unsaid and where these storylines have shortcomings in bringing food, climate, and sustainability together in the CFG. Based on these observations, the following chapter will offer a critical discussion, align these findings to relevant literature, and offer recommendations to improve future iterations of the food guide.

## Chapter 5: Discussion of Storylines

In investigating how food, sustainability, and climate change are discursively articulated together in the CFG, my findings from the previous chapter show that the storylines of “choosing plant-based” and “reducing food waste” are most prominent; weaving narratives from several different domains (health, environment, economy, etc.) together to act as “discursive cement”. These storylines also operate as a channel to enact or inspire change, as they act as a device for actors to position themselves in relation to (which is discussed in section 3.1.3). Based on the examples discussed in Chapter 4, an overarching theme is that the guide frequently discusses the connections between food and the environment in generic ways. In such a way, the guide often lacks important details that are needed to more comprehensively discuss the connections between food, climate change, and environmental sustainability across the food chain, especially with regards to production, processing, and distribution. In doing so, the guide relies more heavily in making these connections with regards to the consumer level. For this reason, my forthcoming discussion is concerned with how the food guide informs the individual consumer, despite the guide’s multiple roles in communicating dietary guidance and shaping food practice across several different levels of actors including individual, industry, and institutions.<sup>33</sup>

In this chapter, I discuss overarching discoveries and interrogations of the plant-based and food waste storylines, as well as illustrate ways that the relationship between citizens and government is expressed within the CFG. First, I consider how the food guide is shaped by a neoliberal orientation of governmentality which has particular ways of cultivating citizens that are aligned with a public health approach to discussing climate change and environmental

---

<sup>33</sup> I remain cognizant that there are particular implications that institutional food may have on individuals and their diets, both immediately and in the long-term through acculturation. Discussing each of these nuances at length is beyond the scope of this thesis but could provide generative analyses to continue this research in the future.

sustainability. I then discuss issues that arise when governing food consumption from this orientation and consider how it creates an idea of what can be construed as a “good” Canadian citizen or consumer that constrains who can align themselves with the storylines and assert agency. Given these considerations, I highlight noteworthy tensions, limitations, and implications of these conceptualizations of citizenship and individual action to situate the food guide in a broader discussion on climate action and climate policy.

### **5.1 Governmentality and Public Health or ‘Solutionist’ Approaches to Governance**

As expressed in the theoretical framework, discourses do not simply mirror social reality, but exercise power relationally between institutions and actors. As Dryzek (2013) describes, discourses have a quality that embodies power in a way which conditions values and perceptions whilst making some people compliant and/or more governable. As such, the analyses of the broader themes and prominent storylines are illuminating when considering the discourses of climate change and environmental sustainability throughout the food guide and its related documentation as they relate to ideas of power. Based on my findings, I consider the storylines that I have dissected to be shaped and constrained by a neoliberal orientation of government.

From this perspective, the Canadian federal government has a respective responsibility to govern and does so in a manner that cultivates citizens who learn to modulate and discipline their behaviours in response to expert advice, in accordance to a public health approach in managing populations (Frumkin & McMichael, 2008). Signaled to in Chapter 4, the guide discusses food and the environment together in generic ways that does not represent a reasonable assessment of information regarding sustainable diets. The information presented often abstracts cherry-picked elements of sustainable diets from the more complex realities and considerations of a sustainable food system. In acknowledging how the discourses have been recontextualized in this way, I

consider the storylines that I have dissected to form a “script” (Van Leeuwen & Wodak, 1999) about sustainable eating that is rooted in consumer choice and responsibility. This script (or representation of sustainable diets) suggests that sustainability considerations, in the context of food consumption, is bound to the idea that greater sustainability through food is attained by individuals. In this way, power is exercised through mechanisms of choice; shifting responsibility of environmental politics from the nation state to individuals by ‘empowering’ individual citizens to make choices based on the information that is provided to them in these documents. In this, citizens can be considered to have a ‘responsibility’ to alter their food behaviours.

As shown within the findings in Chapter 4, the majority of the documents analyzed often include narratives insinuating behaviour changes. The recommendations of the guide also suggest a problem-solution dichotomy or what I call a ‘solutionist’ approach to mediate the relationship between food and climate change. For example, in the plant-based storyline, the environmental narrative generally indicates that animal-based proteins are said to cause more harm to the environment (problem), therefore the food guide prompts individuals to eat more plant-based (solution). This discursive technique invites individuals to reflect upon and adjust their eating behaviours in a manner which is considered to be more environmentally sound and fit in accordance with the advice given as a ‘solution’.

While it is generally up to the individual themselves whether they heed these recommendations<sup>34</sup>, if one were to follow the Government of Canada’s recommendations, they would be eating in a manner that is shown to them as more environmentally conscious. This remains consistent even if at the onset, intentions to eat more plant-based are not guided by a

---

<sup>34</sup> Noting here that some individuals do not have control over their food choices for varied reasons.

desire to be eating in a more environmentally conscious way but for other reasons. For instance, as seen in the health narrative as part of the plant-based storyline, users of the guide are encouraged to eat more plant-based foods (a solution) as a means of lowering their risk of disease (a problem). In reshaping action in this way, citizens following the CFG's guidance can gain a better understanding of personal and social consequences of their behaviours.

This operation of governmentality is also deepened in the storyline of food waste. As outlined particularly with regards to the food skills discourse (section 4.3.2), the nation state is connecting the problem of food waste with the responsibilities of the consumer through the food skills narrative, under the assertion that most food that is wasted stems from the household (Value Chain Management Centre, 2014). Through configuring the problem of food waste this way, the storyline is seemingly designed to provoke a consumer-oriented 'solutionist' narrative rather than something to be considered by all actors across the food production chain. As such, the recommendations provided by the state and informed by expertise 'empowers' individuals to plan meals ahead, or generally improve their food skills. Through this approach, responsibility of food waste shifts away from governmental levels (or industry) to individuals even though it is a problem that occurs across the food chain.

The more prominent environmental narrative of the food waste storyline utilizes an approach that is in line with a public health/'solutionist' approach, too, as it attempts to create targeted links of the environmental implications of food waste to the consumer level of the food production chain. This is done, for example, by identifying that food waste produces methane when food is thrown out as garbage and, ultimately, we should waste less. Through these efforts in articulating food waste with its environmental implications, the government attempts to modulate individual behaviour so citizens can gain awareness of broader social consequences of

their behaviours and may adjust their actions accordingly.<sup>35</sup> Similar to the plant-based storyline, there is no requirement for individuals to adopt these practices.

In problematizing activities that are perhaps taken for granted, or unconscious habits, the Government of Canada is encouraging people to reflect on the issue of food waste in the context of a solution they can enact in order to align themselves with this code of conduct. As Peterson, Davis, Fraser, and Lindsay (2010) discuss, in societies dominated by neoliberal rule, citizens are “called upon to live life like an enterprise” (p. 393) which involves aligning one’s own desires, beliefs, and aspirations with those prescribed by various authorities. An important insight concerning this approach to governance is the way that particular values are indirectly laden within these storylines. The degree to which people can see themselves in the story matters. In the next section, I examine how a “good” Canadian consumer is constructed in the CFG with this approach to governance.

## **5.2 Constructing a “Good” Canadian Consumer/Citizen**

As described previously in this thesis, the current food guide provides public health recommendations on sustainable eating that abstracts information from the complex nature of sustainable diets. Paying close attention to the ways the discourse has been recontextualized has also shed light towards ways that this public health advice has been exclusive and does not ensure enabling environments, as illuminated with the socio-economic narrative (section 4.2.3). I consider that developing public health advice without addressing the arrangements required to realistically action the presented advice makes assumptions about the users of the guide and,

---

<sup>35</sup> It is important to note that this advice is also applicable to the distribution level of the food production chain. However, there is no references within the analyzed documents to the levels of food waste which stems from distribution. Meanwhile, there is explicit consideration for the levels of food waste which stem from the household.

reciprocally, who is constructed through the public health or ‘solutionist’ approaches to communication.

As discussed, the CFG problematizes certain food consumption practices in a manner which encourages reflection to align an individual’s values with their actions in the context of a solution they can achieve. Through this approach, the Government of Canada constructs informed choosing subjects who act ‘responsibly’ through food consumption of better environmental choices. I consider that these choosing subjects align with a particular imagined user of the food guide that I label as the “good” Canadian citizen or consumer<sup>36</sup>. This is a persona of someone who sees themselves, or is more likely to see themselves, represented in the storylines expressed in the food guide. Their identity is aligned with the stories presented and, thus, it is more likely for these choosing subjects to exercise the agency they have to enact change as they have an enabling environment to heed the advice.

Given the primary role of the CFG is as a public health tool, I consider the CFG to first construct this “good” consumer through constructions of health citizenship. In doing so, it also lends insight into examinations of environmental citizenship<sup>37</sup>, and how a public health approach mediates questions of food and climate change. In balancing the responsibility of informing consumer choice with management of the nation's population, the Canadian federal government builds upon neoliberal ideals of health citizenry throughout the food guide as demonstrated by the prominence of health discourse seen within my account of the plant-based storyline<sup>38</sup>.

The idea of health citizenship is not new nor unique to my object of study. Literature has emphasized that in field of public health more broadly, individuals are called upon to do their

---

<sup>36</sup> I interchangeably refer to this persona as the “good” Canadian, citizen, and consumer.

<sup>37</sup> Also referred to as ‘ecological citizenship’ and ‘green citizenship’

<sup>38</sup> For example, by promoting the consumption of plant-based sources of protein for a positive effect on health.

part to advance public health goals through neoliberal measures affecting their lifestyles inclusive of healthy eating, attention to exercise, and preventative testing for diseases. In engaging in these measures, the individual accepts responsibility for their own health under the guise of controlling one's life as a path to well-being (Peterson et. al, 2010; Spoel, Harris, & Henwood, 2014). This demonstrates that health citizenship is constructed under the premise that individuals, rather than government, are primarily responsible for choosing a healthy lifestyle despite universal, public-funded healthcare systems in countries such as Canada (Spoel et. al., 2014). In this way, government becomes a facilitator, and individual conduct is controlled through self-regulation, where people are governed by their own sense of freedom. As such, the “good” Canadian consumer can be considered as someone who values empowerment and choice; they have the ability to modulate their behaviours and, grounded in their own sense of freedom, select ways of acting that are in tune to particular ideas of what ideal states and practices of health are considered to be as per the CFG.

In my commentary of governmentality, I discuss briefly that while upholding these ideals of health citizenship (as in, for example, the “good” Canadian chooses to consume plant-based foods as it is presented as the healthier choice), the documents also encourage ideals of environmental citizenship to influence behaviours to become more environmentally-sound as a result. A basic, common understanding of environmental citizenship is the demand for people to alter their actions for the sake of the environment (Bell, 2005). In my analysis of storylines, I trace how the food guide achieves this in more covert and overt ways<sup>39</sup>, through the various discourses that compose the storylines wedding food, climate change, and environmental

---

<sup>39</sup> For example, the health discourse found within the plant-based storyline is more covert in connecting the environmental implications of food choice while explicit connections between altering individual behaviours and their environmental benefits are made more overt in the food waste storyline.

sustainability together. In more covert ways, the “good” Canadian consumer may or may not be aware of how their choices are impacting the environment. However, as seen in the food waste storyline (particularly section 4.3.1), once the “good” Canadian consumer gains awareness of the broader social consequences of their behaviours through their problematization, they may adjust their actions to be more environmentally benign.

These ideas of citizenship grounded in neoliberal assertions, and the constructions of the “good” Canadian consumer as per the CFG, are complemented by the idea of a “consumer-citizen”. As described by Pocock (1992), the label of citizen classically denotes “membership in a community of shared or common law, which may or may not be identical with a territorial community” (Pocock, 1992, p. 41). Through citizenship, an individual becomes a member of a particular community, and is bound to certain notions of rights and duties as a social citizen within that community including, for example, paying taxes, voting, or jury service. However, as Turner (2016) argues, these notions of citizenship are eroding. Turner explains that neoliberal measures to enforce the free market results in the growth of the “citizen-consumer” (2016, p. 685) who is encouraged to “act responsibly through consumption” (Turner, 2016, p. 685). Through this, the citizen has become “an increasingly a passive consumer exercising individual choices in a society dominated by the market and by commercial values; [...] these social, economic, and political changes have ushered in the consumer denizen and the disappearance of the active citizen” (Turner, 2016, p. 685). This passivity and corrosion of citizenship has led to a decline in conventional forms of political participation whereby “citizens experience their relationship to the state and to the market as passive consumers of information about decisions by a political class over issues that affect them but over which they have little control” (Turner, 2016, p. 685). Based on these accounts, we can interrogate the emergence of the Canadian

consumer/citizen and consider the implications it may have on climate policy (and could be applied to policy more generally). These considerations are discussed in section 5.3.3.

My account of the construction of the “good” Canadian citizen through ideals of health and environmental citizenship emphasizes how the guide has internalized a specific approach to transitioning the food system through consumer choice that is underscored by not establishing enabling environments. For some users of the food guide, this approach allows them to gain awareness of broader consequences of their behaviours and assert their agency to enact. Meanwhile others are excluded from participation. In the next section, I work with the conceptualizations of citizenship and individual action that have been incorporated into the food guide. By making connections between the food guide’s approach to sustainability and approaches to address climate change more broadly (as discussed in my literature review), I situate the food guide into Canadian climate action and discuss the broader implications of this approach for addressing the climate crisis in a meaningful way.

### **5.3 Situating the Food Guide’s ‘Solutionist’ Approach in Broader Climate Policy**

#### *5.3.1 Comparisons to Typical Canadian Climate Policy*

In positioning the food guide and food consumption within a discussion of Canadian climate policy more broadly, we can see both similarities and differences between the guide and the typical storylines that have notably dominated the climate change discussion in Canada. Firstly, the guide appears to be functioning in a manner that closely resembles Gunster’s (2010) recount of news media’s framing of British Columbia’s carbon tax. Similar to the carbon tax, climate change and sustainability are portrayed in the food guide as a problem that consumer choices can fix and, additionally, the food guide’s approach to act on climate change echoes the carbon tax messaging as it lacks an (adequate) environmental rationale. In these ways, the

presentation of altering food choices/behaviours may result in a “hardship” frame where the advice given through the food guide to eat increasingly more plant-based foods and to reduce their food waste may be interpreted as punitive measures, as individuals are encouraged to consider how their lives would be affected rather than engaging individuals in a common interest of environmental protection. As Gunster (2010) notes, the originally favourable policy backfired through the communication of the tax as individuals perceived the tax as disciplinary, leaving themselves with little ability to change. In this way, the food guide may operate somewhat differently from the carbon tax when considering individuals who align themselves with the guide’s storylines. As I have previously noted, the food guide constructs a “good” citizen where some individuals are in a more favourable position to assert their agency to make changes. However, we can assume that the individuals who are excluded from following the guide’s dietary advice (as enabling environments have not yet been established) would be more comparable to the British Columbians who opposed the carbon tax.

Next, when considering how the food guide relates to other patterns that we often see with media coverage of climate change, the guide appears to not be characterized in the same way. While focus is often placed on potential economic opportunities or economic imperatives of a given project (pipelines, development in the North), the food guide’s discourse does not emphasize these aspects as much as one would anticipate. While often the governmental approach to climate change typically aligns with ecological modernization discourse, the food guide does not appear to be reflecting the same messaging. While a Canadian economy and spending narrative is included to develop the plant-based storyline (elaborated on in section 4.3.3), there is overall limited discussion and focus, especially in comparison to the other, more prominent narratives embedded within the guide.

Finally, while the typical storylines centring climate change in Canada often become highly politicized and contentious (such as fights over pipelines), the food guide does not appear to be doing the same. In part through the use of public health language and an appeal to modulate behaviour, the guide seems to be transitioning in less polarizing ways that is also fairly consistent with the typical approach to climate change policy in Canada and discussing climate change at the federal level; appealing to voluntary changes based upon received persuasively presented information. The next section will expand on this and discuss the food guide as internalizing a specific approach to transition the food system through choice.

### *5.3.2 Revisiting Approaches to Systems Transition*

I note in my literature review that the Government of Canada has primarily leaned towards policy measures concerned with short-term educational and voluntary behavioural changes opposed to larger-scale transformative change. As my analysis has shown, the food guide is comprised of statements and advice that, similarly to typical federal climate policy, operate in a manner that is educational and voluntary. Working to appeal citizens to assert their individual agency and thus enact change through problematizing certain behaviours, the food guide considers change in people's everyday practices and emphasizes human agency, based on the degree to which people can see themselves in the story. While this approach to the food guide remains somewhat consistent with typical federal approaches, this mode of governance also adheres to the social practices approach to food systems transitions (Hinrichs, 2014) and we can consider how the approach relates to the regime level in a multi-level perspective to systems transitions.

As Geels (2011) discusses, change can be made through “regimes” which consist of sets of rules that orient the activities of social groups that reproduce the elements of the system;

inclusive of user practices. In this way, the public health recommendations made in the food guide can be considered as the regimes. In a social practices approach to transitioning, for Hinrichs (2014), change is considered by the possible ruptures in everyday practices – in this regard, we can view changes being made in the guide as the CFG centres disrupting current food practices in a manner to be more environmentally benign. Through its approach to change, the food guide attempts to make advances through alterations in user practice. Given these considerations, the current iteration of the food guide can be treated as one attempt in moving towards a social practices approach to transitions in order to engage with the challenge of the climate crisis, which can certainly be viewed as one step in a more favourable direction.

However, regimes are often characterized by path dependencies and lock-ins of current technologies that constrain the breakthrough of niches (Geels, 2011). In the confines of my project, the food guide itself can be viewed as the niche, or space for radical innovation, as it provides a site to deviate from the norm. This is also evidenced from its notable departure from its previous, industry-influenced and overly technical iterations. As Geels (2011) notes, niches are considered to be crucial for transitions because they provide the “seeds for systemic change” (p. 27), but novel practices that are facilitated through a niche only gains momentum if expectations are precise and accepted. From this viewpoint, a novel practice (sustainable eating) would only be a powerful option if the guide and its recommendations fulfill the requirements of acceptability and precision. As my analysis has shown, in its current state, the guide lacks precise detail relating food to climate change and sustainability, as well as lacks enabling environments which impacts its overall acceptability and applicability. Before I turn to ways the food guide can be altered to encompass a more fulsome transitions approach that better addresses the

relationship between food and the environment<sup>40</sup>, I will first discuss important considerations and implications in addressing the climate crisis through the current approach of the food guide.

### 5.3.3 *Considerations and Implications for Addressing the Climate Crisis*

At the crux of current climate change policy, the federal government is tasked with pursuing options to reduce GHG emissions based on the targets established under the United Nations FCCC. Situating the food guide – a more unconventional route of discussing climate change – in an examination of the various approaches to climate change policy highlights the tensions and limitations of the Government of Canada’s communication strategy in both articulating food with climate change and environmental sustainability in the food guide, as well as implementing sufficient climate change policy more broadly. As I attempted to demonstrate in the previous section, the current approach governing the food guide that centres human agency can be productive in some ways. In accordance to a social practices approach to transition, the guide demonstrates a shift of increasingly more systems transitions level of thinking done by the federal government. Given the role of the food guide and its overall lasting influence across consumer, industry, and institutional levels, prompting a transition of food through choice and food practice can be emblematic of a potential longer-term commitment rather than a short-term commitment to behavioural change that we often see in Canadian climate change policy (Simpson et. al., 2007). As recent calls internationally signal an emerging necessity to shift dietary practices as a means to address the climate crisis (Eat-Lancet, 2019; IPCC, 2019), this approach certainly helps facilitate this to a degree. Indeed, it addresses part of the necessary “radical shift” that experts call for to respond to climate change adaptation and mitigation. As the literature on sustainable diet expertise alludes to, this approach in transforming FBDGs in this

---

<sup>40</sup> A list of recommendations is included in the concluding chapter of this thesis.

way can be viewed as providing a solid first step towards greater sustainability (Mason & Lang, 2017).

However, throughout my thesis, I have noted that the current guideline also has shortcomings by opting to primarily discuss implications for the individual in relation to discussions of food, climate change, and sustainability. Conceptualizing change enacted solely through an individual's agency and action is limiting and, in the context of the guide, I argue it also helps construct a persona of a "good" Canadian consumer which is not achievable for entire population of Canada without the right political environments. As Latta (2007) notes, 'citizens' in approaches similar to the construction of the "good" Canadian citizen are collectively viewed to be homogeneous in practice (the implemented policy) even when views and private interests are heterogenous. He goes on to write that "this 'we' of citizenship simultaneously constitutes a silent and passive 'them', the sufferers of injustice, who are construed as marginal political subjects" (Latta, 2007, p. 384). This conception of the "good" Canadian citizen is also emblematic of the idea of an emerging "citizen-consumer" (Turner, 2016) which has its own associations for how citizenry is viewed. The "good" Canadian citizen, from this perspective, acts responsibly through their consumption practices and experiences their relationship to the state in a passive way; having little control over political issues (Turner, 2016).

In the case of climate change action, through these considerations, we can view the emphasis on individual responsibility and behaviour transforming the food guide as a way that the federal government draws attention away from larger questions concerning citizenship, collective action, as well as the lived realities that influence one's ability to make choices; likely an unintentional consequence to the developed approach. Nonetheless, in applying the individualized conceptualizations of change to address the climate crisis and drawing away from

these larger questions, some note that this also ignores the reality that typical environmentally friendly responsibilities fall disproportionately onto women (Latta, 2007, MacGregor, 2007). Most problematically, this also shifts focus from unsustainable and unjust social structures to, instead, place onus on individuals for global crises (MacGregor, 2007). Rather than focusing on individuals, attention should be focused on the “actual spaces in which [ecological] citizens are daily being born in individuals’ and communities’ efforts to become political vis-a`-vis nature” (Latta, 2007, p. 390) in order to “embody a movement toward more inclusive and democratic modes of collective socio-ecological being, and hence toward a plurality of ecological citizenships” (Latta, 2007, p. 390). In this perspective, citizenship and action should be concerned with just structural and systemic changes rather than only individual responsibilities. This point echoes my critique of the guide, too, noting the problematic nature of the development of the guide as it lacks enabling environments – or where the ecological citizens are “being born” (Latta, 2007, p. 390).

While individual level changes are an important part in mitigating effects on climate change, individual action does not replace the need for systemic changes on a larger scale. In the current iteration of the food guide and its construction of a “good” Canadian, these approaches concerned with individual action use a ‘tipping point’ type of logic which attempts to scale change from the bottom up to transform society. Without substantive action from government level, focusing on discourse that privileges individualized actions can be viewed as an escape route from implementing aggressive, and needed, climate policy. As MacGregor (2014) suggests, there is a need for an approach to politics that reclaims space for debate. In this way, we can critique and resist neoliberal framings of socio-environmental problems, while at the same time, take anthropogenic climate change seriously (p. 631).

## **Chapter 6: Conclusion**

This project sought to discover how climate change and environmental sustainability concerns are reshaping Canadian federal food policies and examine the role of communication in addressing climate change effectively and equitably. To do this, I specifically asked how food, sustainability, and climate change are discursively articulated together in Canada's Food Guide and how the relationship between citizens and government is articulated within the dominant storylines of the CFG. In this final chapter of my thesis, I provide an overview of my project and summarize key findings of this study. I present my contributions to the existing literature and offer a discussion of the limitations of this research, avenues for future studies, recommendations to improve the food guide, and conclude with some final thoughts and brief reflection.

### **6.1 Overview of Research**

As discussed in the introductory chapter, this study aimed to interrogate an emerging site of study where global dynamics responding to climate change adaptation and mitigation are working themselves out in – food-based dietary guidelines. While on the surface perhaps a more confined area of study for environmental work, I discussed how these guidelines are becoming recognized as under-utilized, but necessary, components in shifting dietary practices to address a myriad of health and environmental challenges both caused by and affecting food systems. I argued that the Canadian federal government updated its national food guide in 2019 to reflect this growing body of knowledge that assert that diets inextricably link human health and environmental sustainability. Therefore, I contended that my research would shed light onto the ways how Canada's Food Guide is presented as a tool that the Canadian federal government is using to influence consumer behaviour and institutional practices to address climate change and sustainability.

Building from the work of Foucault, Hajer, and Fairclough, I developed a mixed-methods approach to discourse analysis to analyze 52 government documents. I discovered in my analysis that the Government of Canada, through Canada's Food Guide, articulates food, climate change, and environmental sustainability together through two main storylines of "choosing plant-based" and "reducing food waste". Through the process of distilling these dominant storylines, I also revealed that narratives comprising the guide demonstrate that the food guide isn't a representation of one single story, but a site of many colliding ones.

While climate change can be considered as a cultural emblem reshaping and reworking our sense of self (Hulme, 2009), my research shows that climate change is also a dominant discursive construct that governments use to extend the reach of their interventions through expertise and policy. As storylines operate as channels to inspire change, I argued that the manner which the federal government utilizes this 'stories' approach is to specifically encourage individuals to modulate their behaviours in line with the expertise on diet and climate change. I had come to this conclusion when analyzing the elements that constitute as a sustainable diet (as considered in section 2.2.1) described within the guide; making note of what is said and unsaid within the government documents to discuss the environmental implications of food. From these observations, I discovered that the guide frequently discussed the connections between food and the environment in generic ways that lacked important details that are needed to more comprehensively discuss a larger, complete picture of sustainable food systems, across the food production chain. In doing so, the guide relies more heavily in making these connections with regards to the consumer level.

Through the development of an approach which emphasizes making individual changes by problematizing certain actions, I note that this is reflective of common public health

approaches to communication; often referring to this approach as ‘solutionist’. In these problematizations, space is created for citizens to reflect upon and adjust their behaviours in a manner which is considered to be more environmentally sound and fit in accordance with the advice given as a ‘solution’. In such an approach, I discuss that the Government of Canada constructs citizens as a “good” Canadian consumer, or someone who is able to take on the role of a choosing-subject of environmentally beneficial actions, while leaving larger questions over creating enabling environments and supporting collective action unattended. To that end, my research brings to the fore that this approach acts as a cornerstone for transforming food guides to address climate change and sustainability concerns, however, it also creates tensions in the broader discussion of climate change action and policy as individual actions do not replace the need for systemic changes on a larger scale.

## **6.2 Key Findings**

My research has gleaned some important insights. As no study had yet discerned analytically how climate change and food are articulated together in food-based dietary guidelines, first, this project provides insight on how stories of climate change and climate policy can, and are, unfolding within examinations of food policy in subtle ways. Moving beyond the conventional intentions of FBDGs, I demonstrate that Canada’s Food Guide does mediate a relationship between food, climate change, and environmental sustainability that reflect aspects of sustainable diets; encapsulating multiple goals of eating well for human health in a manner that causes the least environmental damage. In particular, my research demonstrates that in addition to narratives of health and environment, this relationship also most prominently considers aspects relating to socioeconomics, national spending, and food skills.

Secondly, my research demonstrates that in transforming the food guide to reflect the expertise on sustainable diets, certain activities are problematized in order to enact environmentally-sound, consumer-based changes. In some regards, this approach provides a viable and effective option to implement as climate change policy and addresses part of the necessary “radical shift” to food that experts call for to respond to climate change adaptation and mitigation (Eat-Lancet, 2019; FAO, 2019). I consider this to reflect the “social practices” approach to systems transitions, given its focus on rupturing everyday practices. However, my study also draws attention to ways that this approach excludes certain voices and constructs a “good” Canadian citizen, drawing attention to how enabling environments must be ensured when developing public health recommendations as a means of greater inclusivity.

Lastly, my research highlights an interesting tension in implementing sufficient climate change policy. Many ways the Canadian government has historically addressed the climate crisis through policy has been insufficient, has resulted in backlash, and has been highly politicized, and therefore can often be considered as a “do nothing” strategy. In situating my study within broader discussions of climate change policy, the transformation of the CFG has offered an alternative social practices transitions approach to sustainability that centers human agency, in a way that addresses the climate crisis in a less polarizing way. Here, climate change is portrayed as problem that consumer choices can fix. However, connecting this more broadly to view the relationship between government and citizen, my research contends that this shifts the bigger focus from unsustainable and unjust social structures to place onus on individuals through a dominant focus on changes driven by consumers. While the food guide can act as a space for radical innovation, or a “niche” as per a multi-level transitions approach, to include sustainable diet considerations, its current form is constrained by a more conservative, ‘solutionist’

approach. I conclude that while individual level changes are important to confront the climate crisis, they do not substitute for systemic changes on a larger scale.

### **6.3 Theoretical Contributions**

This research has contributed to the existing literature on governmental climate change communication and policy, and sustainable diets, in important ways. First, my research shows how food, as a sector transitioning to greater sustainability, can be a more viable option to actively pursue when considering policy measures. Most prominently, sustainable transitions focus in Canada has been on energy and electricity systems, but this research shows that food, too, offers important intervention points. The transition of food-based dietary guidelines, specifically, appears to be moving in more subtle ways through influencing changes of social practices. These targeted interventions can work in preliminary ways to observe incremental change in a less polarizing fashion, compared to the symbolic stories of pipelines, carbon taxes, and the North which tend to dominate the communication of climate change in Canada. From a multi-level perspective to systems transitions, this thesis also demonstrates that the food guide can offer a promising pathway to pursue, considering the guide itself as a ‘niche’ and its recommendations as the ‘regimes’ which orient activities. Under this conceptualization, the current dietary advice constrains the advancement of a sustainable food guide, but I offer recommendations in section 6.4.2 to potentially pursue in order to advance this line of thinking for more radical change.

Second, this research also establishes that interrogating unconventional areas in studying climate change can be a fruitful way to shed light to its complex nature and can also highlight the interconnected qualities of social injustices in one particular moment. As conventionally a public health tool, the food guide uses a public health approach to communicate dietary guidance and,

in turn, climate change from this research orientation. While there can be some tangible benefits to this communication approach, it is not perfect, and critical analysis of environmental discourse in this setting shows us that this site of inquiry creates a space to draw attention to, and examine, what is said and unsaid. The food guide is filled with meaning and highlights complicated and complex issues, such as income disparities and Indigenous resurgence, through simplified stories of banal practices. This research brings that to the fore.

## **6.4 Pathways Forward**

### *6.4.1 Limitations and Avenues for Future Research*

As this research is characterized and limited by the scope and scale of a master's thesis, there are some limitations to this study where future research can be fruitful. First, this study was reliant on published government texts for analysis which poses challenges in inferring dynamics between various actors. I heavily relied on texts that describe the construction of the guide in order to infer how different groups of actors came together to create unifying ideas (storylines), thus securing discursive dominance. Future studies should expand on what this thesis could not achieve by analyzing texts from different actors, or conducting interviews with prominent informants, to gain a more robust discussion on the formation of discourse-coalitions.

In addition, to distill storylines, my methodology remained focused on the distinct and explicit ways that food, climate change, and environmental sustainability were being on revealed together in the food guide. In selecting this classification method, there was a degree of reduction and closure which occurred. In attempt to address this limitation, my analysis sought to draw attention to other narratives that may be influencing the food guide and government communication more broadly yet haven't been brought together through a storyline within the guide. While my discussion and analysis provide important insights, these narratives could not

be fully explored here. Future research that delves more deliberately into the various narratives within the food guide can expand and draw attention to broader storylines that are perhaps influencing climate change policy in Canada.

#### *6.4.2 Recommendations for Improving the Food Guide*

My findings and discussion have suggested that while the 2019 iteration of the food guide and its supporting documents articulate food, climate change, and environmental sustainability together, there are shortcomings in way these connections are presented. Often lacking important contextual and nuanced information to sustainable diets, the advice given in the food guide abstracts the guidance from the more complex realities and considerations of a sustainable food system. As such, this may lead the guide to embody a “hardship” frame (Gunster, 2010) where the advice may be interpreted as punitive measures, rather than engaging individuals in a common interest of environmental protection. Furthermore, this lack of precision in articulating the relationship between food and environment hinders the development of sustainable eating (a more novel practice) as powerful tool in transitioning to greater environmental sustainability as these sorts of practices only gain momentum if expectations become more precise and broadly accepted (Geels, 2011).

While an important first step to consider these sorts of connections within the food guide has been achieved, the momentum must continue if Canada going to be serious in its approach to addressing the climate crisis through food. As such, I recommend that Health Canada, as the department responsible for the food guide, collaborate with other federal government departments and agencies<sup>41</sup> for a ‘whole-of-government’ approach to sustainable diets and

---

<sup>41</sup> Collaboration with Environment and Climate Change Canada (ECCC), Employment and Social Development Canada (ESDC), the Privy Council Office (PCO), Agriculture and Agri-food Canada (AAFC) and the other departments and agencies within the health portfolio are likely to be key governmental partners.

developing the food guide, alongside partnerships with provincial and territorial governments, and Indigenous partners. Guided under a framework of collaboration, the following recommendations are intended for the food guide to articulate food, climate change, and environmental sustainability better, and support the development of future policies related to sustainable food in a manner that is consistent across the federal government and other jurisdictions:

1. Attain federal recognition of the interplay between food, climate change, and environmental sustainability and the prioritization of sustainable food systems.
2. Recognize Indigenous Peoples' responsibilities and relationships to land, and Indigenous conceptions of food sovereignty.
3. Ensure enabling environments are established as to provide all Canadians an equal opportunity to follow the guideline advice.
4. Create and circulate documents alongside Canada's Food Guide that highlight the intricacies of sustainable diets in Canada.
5. Increase attention to the environmental implications of food in Canada, especially the production and distribution components of the food production chain as they relate to aspects of sustainable food.

The following are some suggested actions related to the recommendations that can be implemented both in the short-term and long-term to advance the priority of sustainable food in Canada:

1. Make pointed connections between food waste and plant-based foods with the environment within the current food guide documentation, such as including information on how these actions are related to lowering GHG emissions.

2. Establish a comprehensive knowledge base of the environmental implications of food in Canada to inform the creation of future documents, including information on GHG emissions per crop, food waste across the food chain, and projections of how climate change may alter food production and distribution across the country.
3. Create companion documents to the food guide similar to *Canada's Dietary Guidelines for Health Professionals and Policy Makers* on the topics of sustainable food and food systems in Canada, including Indigenous food sovereignty.
4. Coordinate with Employment and Social Development Canada, the department responsible for the Government of Canada's *Poverty Reduction Strategy*, when developing dietary guidance to ensure alignment between healthy eating recommendations provided and available social assistance.
5. Coordinate with the Privy Council Office to provide departmental input on the Speech from the Throne, Cabinet documents (Memoranda to Cabinet, presentations), and the Budget to advance the priority of sustainable food in Canada. Achieving federal recognition in these ways will assist in advancing all other related actions.

This list is not exhaustive. While food guides are one part of moving towards larger, systemic changes, I encourage the federal government to consider new ways that moves thinking beyond the guideline to develop an ethos of sustainability across the country, in a manner that is equitable and fair.

## **6.5 Final Thoughts**

As Hulme (2009) eloquently states, “climate change is not a ‘problem’ waiting for a ‘solution’. It is an environmental, cultural and political phenomenon that is re-shaping the way we think about ourselves, our societies, and humanity’s place on Earth” (p. 3). I began my thesis

in recounting some ways how, over time, climate change has reshaped my sense of self. From a different orientation, my study is concerned with how governments use the discourse of climate change to extend the reach of their policy interventions. In this regard, I shed light to an approach to governance that appeals to someone's sense of self to influence individuals to modify their actions in order to be more environmentally friendly. While I am critical of this approach in my thesis, when conducting this research, I was also reminded of how this approach has been an effective strategy in my own life to modulate my behaviours in the past (and present). Certainly, I am able to assert my agency in consumption-oriented ways as I am privileged enough to be in a position to do so. While I may be able to identify the larger social structures that impact my ability to take part in climate action in such a way, this does not negate that I am able to feel a sense of 'empowerment' when I make these choices. Tangibly, I can see a broadly construed idea of 'climate action' happening in my day to day which brings a bit of hope into the hellscape. My own relationship to individualized climate action underscores, to me, the importance of the degree to which people can apply the story being presented to them in their own lives.

Although I recognize and appreciate the importance of individual action, I believe that it does not substitute for systemic action. I fear that an overreliance and focus on individual action when it comes to climate action invites hypocrisy and guilt through accusations of duplicity (Gunster, Fleet, Paterson, and Saurette, 2018), as much as they do empowerment. When discussing options to mitigate the effects of climate change, at worse, it may distract us from punching upwards to those who are most responsible for the climate crisis. Evidently, I am pulled in both directions of proponent and critic, but I don't think this is an undesirable position to be in. There are limits, potentials, affordances, and constraints with each potential measure to

confront the crisis; we can carve out space to both critique and resist, while also taking the threat of the climate crisis seriously.

## Appendices

### Appendix A : Primary Data Reference List

Agriculture and Agri-food Canada. (2017). *Food Policy for Canada*. Government of Canada. <https://www.canada.ca/en/campaign/food-policy.html>

Agriculture and Agri-food Canada. (2018). *What We Heard: Consultations on a Food Policy for Canada*. <https://www.canada.ca/content/dam/aafc-aac/documents/20181025-en.pdf>

Agriculture and Agri-food Canada. (2019). “*Everyone at the Table!*” *Government of Canada announces the first-ever Food Policy for Canada*. Government of Canada. <https://www.canada.ca/en/agriculture-agri-food/news/2019/06/everyone-at-the-table-government-of-canada-announces-the-first-ever-food-policy-for-canada.html>

Agriculture and Agri-food Canada. (2019). *Food Policy for Canada: Everyone at the Table*. <https://www.canada.ca/content/dam/aafc-aac/documents/20190614-en.pdf>

Agriculture and Agri-food Canada. (2019). *Learn more – Food Policy for Canada*. Government of Canada. <https://www.canada.ca/en/campaign/food-policy/learn-more.html>

Corporate Research Associates. (2017). *Focus Groups on Use of Healthy Eating Information*. <https://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/health/2017/116-16-e/report.pdf>

Earncliffe Strategy Group. (2018). *Healthy Eating Strategy – Dietary Guidance Transformation – Focus Groups on Healthy Eating Messages, Visuals and Brands Research Report*. <https://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/health/2018/046-17-e/report.pdf>

Government of Canada. (2013). *Healthy and Safe Food for Canadians Framework*. [https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/eating-nutrition/risks-recalls-rappels-risques/surveillance/safe-food-securite-alimentaire/alt/safe\\_food-securite\\_alimentaire-eng.pdf](https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/eating-nutrition/risks-recalls-rappels-risques/surveillance/safe-food-securite-alimentaire/alt/safe_food-securite_alimentaire-eng.pdf)

Health Canada. (2007). *Eating Well with Canada’s Food Guide: First Nations, Inuit, and Métis*. Government of Canada. [https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt\\_formats/fnihb-dgspni/pdf/pubs/fnim-pnim/2007\\_fnim-pnim\\_food-guide-aliment-eng.pdf](https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt_formats/fnihb-dgspni/pdf/pubs/fnim-pnim/2007_fnim-pnim_food-guide-aliment-eng.pdf)

Health Canada. (2016). *Evidence review for dietary guidance: Summary of results and implications for Canada’s Food Guide*. <https://www.canada.ca/content/dam/canada/health-canada/migration/publications/eating-nutrition/dietary-guidance-summary-resume-recommandations-alimentaires/alt/pub-eng.pdf>

- Health Canada. (2016). *Healthy Eating Strategy*.  
<https://www.canada.ca/content/dam/canada/migration/publications/eating-nutrition/healthy-eating-strategy-canada-strategie-saine-alimentation/alt/pub-eng.pdf>
- Health Canada. (2017). Front-of-Package Nutrition Labelling.  
<https://www.canada.ca/content/dam/hc-sc/documents/services/publications/food-nutrition/labelling-stakeholder-engagement-meeting-september-2017/food-nutritionlabelling-stakeholder-engagement-meeting-september-2017-eng.pdf>
- Health Canada. (2017). *Guiding Principles*. Government of Canada.  
<https://www.foodguideconsultation.ca/guiding-principles-detailed>
- Health Canada. (2019). *Backgrounder: The science behind the new Food Guide*. Government of Canada. <https://www.canada.ca/en/health-canada/news/2019/01/backgrounder-the-science-behind-the-new-food-guide-----.html>
- Health Canada. (2019). *Canada's Dietary Guidelines for Health Professionals and Policy Makers*. <https://food-guide.canada.ca/en/guidelines/>
- Health Canada. (2019). *Evidence behind the food guide*. Government of Canada.  
<https://www.canada.ca/en/health-canada/services/canada-food-guide/resources/evidence.html>
- Health Canada. (2019). *Food, Nutrients and Health: Interim Evidence Update*.  
<https://www.canada.ca/content/dam/hc-sc/documents/services/canada-food-guide/resources/evidence/food-nutrients-health-interim-evidence-update-2018/pub1-eng.pdf>
- Health Canada. (2019). *Health Canada's healthy eating strategy*. Government of Canada.  
<https://www.canada.ca/en/services/health/campaigns/vision-healthy-canada/healthy-eating.html>
- Health Canada. (2019). *Health Canada unveils Canada's Food Guide Snapshot in nine Indigenous languages*. Government of Canada. <https://www.canada.ca/en/health-canada/news/2019/06/health-canada-unveils-canadas-food-guide-snapshot-in-nine-indigenous-languages.html>
- Health Canada. (2019). *Health Canada Unveils Canada's Food Guide Snapshot in 17 multicultural languages*. Government of Canada. <https://www.canada.ca/en/health-canada/news/2019/06/health-canada-unveils-canadas-food-guide-snapshot-in-17-multicultural-languages.html>
- Health Canada. (2019). *Healthier grocery shopping*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/healthier-grocery-shopping/>

- Health Canada. (2019). *Healthy eating and the environment*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/healthy-eating-and-the-environment/>
- Health Canada. (2019). *Healthy eating at home*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/home/>
- Health Canada. (2019). *Healthy eating at school*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/school/>
- Health Canada. (2019). *Healthy eating at work*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/work/>
- Health Canada. (2019). *Healthy eating habits*. Government of Canada. <https://food-guide.canada.ca/en/healthy-eating-habits/>
- Health Canada. (2019). *Healthy eating for adults*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/adults/>
- Health Canada. (2019). *Healthy eating for holidays and events*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/holidays-and-events/>
- Health Canada. (2019). *Healthy eating for parents and children*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/parents-and-children/>
- Health Canada. (2019). *Healthy eating for seniors*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/seniors/>
- Health Canada. (2019). *Healthy eating for teens*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/teens/>
- Health Canada. (2019). *Healthy eating on a budget*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/healthy-eating-on-a-budget/>
- Health Canada. (2019). *Healthy eating in the community*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/community/>
- Health Canada. (2019). *Healthy eating when pregnant and breastfeeding*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/pregnant-breastfeeding/>
- Health Canada. (2019). *Healthy eating while eating out*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/while-eating-out/>
- Health Canada. (2019). *Healthy eating recommendations*. Government of Canada. <https://food-guide.canada.ca/en/healthy-eating-recommendations/>

- Health Canada. (2019). *Healthy food choices*. Government of Canada. <https://food-guide.canada.ca/en/healthy-food-choices/>
- Health Canada. (2019). *Healthy snacks*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/healthy-snacks/>
- Health Canada. (2019). *Make healthy meals with the Eat Well Plate*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/make-healthy-meals-with-the-eat-well-plate/>
- Health Canada. (2019). *Meal planning*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/meal-planning/>
- Health Canada. (2019). *Minister of Health launches new approach for Canada's Food Guide*. Government of Canada. <https://www.canada.ca/en/health-canada/news/2019/01/minister-of-health-launches-new-approach-for-canadas-food-guide.html>
- Health Canada. (2019). *Revision process for Canada's food guide*. Government of Canada. <https://www.canada.ca/en/health-canada/services/canada-food-guide/about/revision-process.html>
- Health Canada. (2019). *Sugar substitutes and healthy eating*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/sugar-substitutes-and-healthy-eating/>
- Health Canada. (2019). *What are Canada's Dietary Guidelines?*. Government of Canada. <https://food-guide.canada.ca/en/guidelines/what-are-canadas-dietary-guidelines/>
- Health Canada. (2020). *Adjusting recipes to meet your needs*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/adjusting-recipes/>
- Health Canada. (2020). *Canada's Food Guide*. Government of Canada. <https://food-guide.canada.ca/en/>
- Health Canada. (2020). *Food guide snapshot*. Government of Canada. <https://food-guide.canada.ca/en/food-guide-snapshot/>
- Health Canada. (2020). *Improving your eating habits*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/improving-eating-habits/>
- Health Canada. (2020). *Tips for healthy eating*. Government of Canada. <https://food-guide.canada.ca/en/tips-for-healthy-eating/>
- House of Commons. (2017). *A Food Policy for Canada: Report of the Standing Committee on Agriculture and Agri-Food*. <https://www.ourcommons.ca/DocumentViewer/en/42-1/AGRI/report-10/>

Ipsos Public Affairs. (2017). *Health Canada Canada's Food Guide Consultation Phase 1 What We Heard Report*. <https://www.canada.ca/content/dam/hc-sc/documents/services/publications/food-nutrition/canada-food-guide-phase1-what-we-heard-eng.pdf>

Ipsos Public Affairs. (2018). *Health Canada Canada's Food Guide Consultation Phase 2 What We Heard Report*. <https://www.canada.ca/content/dam/hc-sc/documents/services/health/publications/food-nutrition/canada-food-guide-phase2-what-we-heard.pdf>

# Appendix B: CFG Images

## Eating Well with Canada's Food Guide (2007)

| Recommended Number of Food Guide Servings per Day |   | Children |     |      |       | Adults |      |     |                |         |       |         |       |
|---|---|----------|-----|------|-------|--------|------|-----|----------------|---------|-------|---------|-------|
|   |   | 2-3      | 4-8 | 9-13 | 14-18 | 19-50  | 51+  | Sex | Girls and Boys | Females | Males | Females | Males |
| <b>Vegetables and Fruit</b>                       | 4 | 5        | 6   | 7    | 8     | 7-8    | 8-10 | 7   | 7              |         |       |         |       |
| <b>Grain Products</b>                             | 3 | 4        | 6   | 6    | 7     | 6-7    | 8    | 6   | 7              |         |       |         |       |
| <b>Milk and Alternatives</b>                      | 2 | 2        | 3-4 | 3-4  | 3-4   | 2      | 2    | 3   | 3              |         |       |         |       |
| <b>Meat and Alternatives</b>                      | 1 | 1        | 1-2 | 2    | 3     | 2      | 3    | 2   | 3              |         |       |         |       |

**What is One Food Guide Serving? Look at the examples below.**

- Vegetables and Fruit:** Fresh, frozen or canned vegetables (125 mL or 1/2 cup); Leafy vegetables (Cooked: 125 mL (1/2 cup), Raw: 250 mL (1 cup)); Fresh, frozen or canned fruits (1 fruit or 125 mL (1/2 cup)); 100% Juice (125 mL (1/2 cup)).
- Grain Products:** Bread (1 slice (35 g)); Bagel (1/2 bagel (45 g)); Flat breads (1/2 pita or 1/2 tortilla (35 g)); Cooked rice, bulgur or quinoa (125 mL (1/2 cup)); Cereal (Cold: 30 g, Hot: 175 mL (1/2 cup)); Cooked pasta or couscous (125 mL (1/2 cup)).
- Milk and Alternatives:** Milk or powdered milk (reconstituted) (250 mL (1 cup)); Canned milk (evaporated) (125 mL (1/2 cup)); Fortified soy beverage (250 mL (1 cup)); Yogurt (175 g (1/2 cup)); Kefir (175 g (1/2 cup)); Cheese (50 g (1 1/2 oz)).
- Meat and Alternatives:** Cooked fish, shellfish, poultry, lean meat (75 g (2 1/2 oz.) (125 mL (1/2 cup))); Cooked legumes (125 mL (1/2 cup)); Tofu (125 g (1/2 cup)); Eggs (2 eggs); Peanut or nut butters (30 mL (1/2 Tbsp)); Shelled nuts and seeds (60 mL (1/2 cup)).

**Make each Food Guide Serving count... wherever you are - at home, at school, at work or when eating out!**

- Eat at least one dark green and one orange vegetable each day. Go for dark green vegetables such as broccoli, romaine lettuce and spinach. Go for orange vegetables such as carrots, sweet potatoes and winter squash.
- Choose vegetables and fruit prepared with little or no added fat, sugar or salt. Enjoy vegetables steamed, baked or stir-fried instead of deep-fried.
- Have vegetables and fruit more often than juice.
- Make at least half of your grain products whole grain each day. Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice. Enjoy whole-grain breads, cereals or whole-wheat pasta.
- Choose grain products that are lower in fat, sugar or salt. Compare the Nutrition Facts table to make wise choices. Enjoy the true size of grain products. When adding sauces or spreads, use small amounts.
- Drink skim, 1% or 2% milk each day. Have 500 mL (2 cups) of milk every day for adequate calcium. Drink fortified soy beverages if you do not drink milk.
- Select lower fat milk alternatives. Compare the Nutrition Facts table on yogurts or cheeses to make wise choices.
- Have meat alternatives such as beans, lentils and tofu often.
- Eat at least two Food Guide Servings of fish each week. Choose fish such as chile, herring, mackerel, salmon, sardines and trout.
- Select lean meat and alternatives prepared with little or no added fat or salt. Use cooking methods such as roasting, baking or poaching that require little or no added fat. If you eat backbone meats, sausages or prepackaged meats, choose those lower in salt (sodium) and fat.

**Oils and Fats**

- Include a small amount - 30 to 45 mL (2 to 3 Tbsp) - of unsaturated fat each day. This includes oil used for cooking, salad dressings, margarine and mayonnaise.
- Use vegetable oils such as canola, olive and soybean.
- Choose soft margarines that are low in saturated and trans fats.
- Limit butter, hard margarine, lard and shortening.

**Enjoy a variety of foods from the four food groups.**

**Satisfy your thirst with water!**

Drink water regularly. It's a calorie-free way to quench your thirst. Drink more water in hot weather or when you are very active.

\* Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information.

## Canada's Food Guide (2019)

Have plenty of vegetables and fruits

Eat protein foods

Make water your drink of choice



Choose whole grain foods

## References

- Anderson, L., Mah, C., & Sellen, D. (2015). Eating well with Canada's food guide? Authoritative knowledge about food and health among newcomer mothers. *Appetite*, *91*, 357-365. Retrieved from: <https://doi.org/10.1016/j.appet.2015.04.063>
- Bell, D. (2005). Liberal Environmental Citizenship. *Environmental Politics*, *14*(2), 179-194. DOI: 10.1080/09644010500054863
- Beverland, M. (2014). Sustainable Eating: Mainstreaming Plant-Based Diets In Developed Economies. *Journal of Macromarketing*, *34*(3), 369-382. DOI: 10.1177/0276146714526410
- Blay-Palmer, A., Landman, K., Knezevic, I., & Hayhurst, R. (2013). Constructing resilient, transformative communities through sustainable "food hubs". *Local Environment*, *18*(5), 521-528. DOI: 10.1080/13549839.2013.797156
- Blay-Palmer, A., Knezevic, I., Andrée, P., Ballamingie, P., Landman, K., Mount, P., Nelson, C., Nelson, E., Stahlbrand, L., Stroink, M., & Skinner, K. (2013). Future food system research priorities: A sustainable food systems perspective from Ontario, Canada. *Journal of Agriculture, Food Systems, and Community Development*, *3*(4), 227-234. <http://dx.doi.org/10.5304/jafscd.2013.034.029>
- Blay-Palmer, A., Sonnino, R., & Custot, J. (2016). A food politics of the possible? Growing sustainable food systems through networks of knowledge. *Agriculture & Human Values*, *33*, 27-43. DOI: 10.1007/s10460-015-9592-0
- Bush, M., & Kirkpatrick, S. (2003). Setting dietary guidance: the Canadian experience. *Journal of the American Dietetic Association*, *103*(12), 22-27. Retrieved from: <https://doi.org/10.1016/j.jada.2003.09.033>
- Calma, J. (2019, December 27). 2019 was the year of 'climate emergency' declarations. *The Verge*. Retrieved from <https://www.theverge.com/2019/12/27/21038949/climate-change-2019-emergency-declaration>
- Caplan, P. (2008). Crossing the Veg/Non-Veg Divide: Commensality and Sociality Among the Middle Classes in Madras/Chennai. *Journal of South Asian Studies*, *8*(1), 494-511. DOI: 10.1080/00856400701874742
- Carey, R., Munter, P., Bosworth, H., & Whelton, P. (2018). Prevention and Control of Hypertension. *Journal of the American College of Cardiology*, *72*(11), 2996-3011. <https://doi.org/10.1016/j.jacc.2018.07.008>
- CBC News. (2019, September 27). Climate protestors make voices heard in Ottawa. *CBC News*. Retrieved from <https://www.cbc.ca/news/canada/ottawa/photos-climate-strike-ottawa-1.5300353>

- CBC News. (2019, January 24). Labrador food security woes get helping hand from new nutrition guide. *CBC News*. Retrieved from <https://www.cbc.ca/news/canada/newfoundland-labrador/food-guide-thumbs-up-from-north-1.4990886>
- Chater, A. (2018). An Examination of the Framing of Climate Change by the Government of Canada, 2006-2016. *Canadian Journal of Communication*, 43, 583-600. Retrieved from <http://doi.org/10.22230/cjc.2018v43n4a3300>
- Chenhall, C. (2011). *Improving cooking and food preparation skills: A synthesis of the evidence to inform program and policy development*. Health Canada. <https://www.canada.ca/en/health-canada/services/publications/food-nutrition/improving-cooking-food-preparation-skills-synthesis-evidence-inform-program-policy-development-2010.html>
- Chin-Yee, M., & Chin-Yee, B. (2015). Nutrition North Canada: Failure and Façade within the Northern Strategy. *UMTJ*, 82(3), 13-18. <http://utmj.org/index.php/UTMJ/article/view/215/321>
- Coté, C. (2016). “Indigenizing” Food Sovereignty. Revitalizing Indigenous Food Practices and Ecological Knowledges in Canada and the United States. *Humanities*, 5(57), 1-14. doi:10.3390/h5030057
- Del Valle, G. (2018, October 12). Can consumer choices ward off the worst effects of climate change? An expert explains. *Vox*. Retrieved from <https://www.vox.com/the-goods/2018/10/12/17967738/climate-change-consumer-choices-green-renewable-energy>
- Donati, M., Menozzi, D., Zighetti, C., Rosi, A., Zinetti, A., and Scazzina, F. (2016). Towards a sustainable diet combining economic, environmental and nutritional objectives. *Appetite*, 106, 48-57. Retrieved from <https://doi.org/10.1016/j.appet.2016.02.151>
- Dryzek, J. (2013). *The politics of the earth: environmental discourses*. Oxford: Oxford University Press.
- Fairclough, N. (2003). *Analysing Discourse: Textual analysis for social research*. New York, NY: Routledge.
- Fairclough, N. (2013). Critical discourse analysis and critical policy studies. *Critical Policy Studies*, 7(2), 177-197. <https://doi.org/10.1080/19460171.2013.798239>
- Feldman, L., & Hart, S. (2018). Broadening Exposure to Climate Change News? How Framing and Political Orientation Interact to Influence Selective Exposure. *Journal of Communication*, 68(3), 503-524. <https://doi.org/10.1093/joc/jqy011>

- Food and Agriculture Organization of the United Nations. (2019). *Dietary guidelines and sustainability*. Retrieved from <http://www.fao.org/nutrition/education/food-dietary-guidelines/background/sustainable-dietary-guidelines/en/>
- Food Secure Canada. (2019). *Food Guide Launch: Reaction Round-Up*. <https://foodsecurecanada.org/resources-news/news-media/food-guide-launch-reaction-round>
- Frantzeskaki, N., Loorbach, D., & Meadowcroft, J. (2012). Governing societal transitions to sustainability. *International Journal of Sustainable Development*, 15, 19-36. DOI: 10.1504/IJSD.2012.044032
- Frumkin, H., & McMichael, A. (2008). Climate Change and Public Health. *American Journal of Preventative Medicine*, 35(5), 403-410. <https://doi.org/10.1016/j.amepre.2008.08.019>
- Fulton, J., Norton, M., & Shilling, F. (2019). Water-indexed benefits and impacts of California almonds. *Ecological Indicators*, 96(1), 711-717. <https://doi.org/10.1016/j.ecolind.2017.12.063>
- Garnett, T. (2011). Where are the best opportunities for reducing greenhouse gas emissions in the food system (including the food chain)?. *Food Policy*, 36, 523-532. doi:10.1016/j.foodpol.2010.10.010
- Geels, F. (2004). From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory. *Research Policy*, 33, 897-920. doi:10.1016/j.respol.2004.01.015
- Geels, F. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental Innovation and Societal Transitions*, 1, 24-40. doi:10.1016/j.eist.2011.02.002
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597-606. Retrieved from <https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1870&context=tqr>
- Grey, S., & Patel, R. (2014). Food sovereignty as decolonization: some contributions from Indigenous movements to food system and development politics. *Agriculture and Human Values*, 32, 431-444. DOI: 10.1007/s10460-014-9548-9
- Gunster, S. (2010). Self-Interest, Sacrifice and Climate Change: (Re)-Framing the BC Carbon Tax. In M. Maniates & J. M. Meyer (Eds.), *The Environmental Politics of Sacrifice* (187-215). Cambridge, MA: The MIT Press.
- Gunster, S., Fleet, D., Paterson, M., & Saurette, P. (2018). "Why Don't You Act Like Your Believe It?": Competing Visions of Climate Hypocrisy. *Frontiers in Communication*, 3(49), 1-14. <https://doi.org/10.3389/fcomm.2018.00049>

- Gunster, S., & Saurette, P. (2014). Storylines in the Sands: News, Narrative, and Ideology in the Calgary Herald. *Canadian Journal of Communication*, 39(3), 333-359. DOI: <https://doi.org/10.22230/cjc.2014v39n3a2830>
- Hajer, M. (2003). A frame in the field: Policymaking and the reinvention of politics. In M. Hajer & H. Wagenaar (Eds.), *Deliberative Policy Analysis: Understanding Governance in the Network Society* (pp. 88-110). Cambridge University Press.
- Hajer, M. (1995). *The Politics of Environmental Discourse*. New York, NY: Oxford University Press.
- Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning*, 7(3), 175-184. DOI: 10.1080/15239080500339646
- Harrison, K. (2012). A Tale of Two Taxes: The Fate of Environmental Tax Reform in Canada. *Review of Policy Research*, 29(3), 383-407. DOI: 10.1111/j.1541-1338.2012.00565.x
- Health Canada. (2019). Canada's food guide. Retrieved from <https://food-guide.canada.ca/en/>
- Health Canada. (2019). History of Canada's food guides from 1942 to 2007 (180399). Ottawa, ON: Canada.
- Hedenus, F., Wirsenius, S., & Johansson, D. (2014). The importance of reduced meat and dairy consumption for meeting stringent climate change targets. *Climatic Change*, 124, 79-91. DOI: 10.1007/s10584-014-1104-5
- Henderson, A., Epp-Koop, S., & Slater, J. (2017). Exploring food and healthy eating with newcomers in Winnipeg's North End. *International Journal of Migration, Health, and Social Care*, 13(1), 1-14. DOI:10.1108/IJMHS-06-2015-0022
- Henstra, D. (2017). Climate Adaptation in Canada: Governing a Complex Policy Regime. *Review of Policy Research*, 34(3), 378-399. DOI: 10.1111/ropr.12236
- Hinrichs, C. (2014). Transitions to sustainability: a change in thinking about food systems change? *Agriculture & Human Values*, 31, 143-155. DOI: 10.1007/s10460-014-9479-5
- Howath, C. (2017). Informing decision making on climate change and low carbon futures: Framing narratives around the United Kingdom's fifth carbon budget. *Energy Research & Social Science*, 31, 295-302. <http://dx.doi.org/10.1016/j.erss.2017.06.011>
- Hudema, M. (2019, September 30). *It was historic – 7.6 million strike for climate action*. <https://www.greenpeace.org/canada/en/story/25523/it-was-historic-7-6-million-strike-for-climate-action/>

- Hunter, A. (2019, January 23). Prominence of pulses in new food guide food for Saskatchewan pulse producers. *CBC News*. Retrieved from <https://www.cbc.ca/news/canada/saskatchewan/food-guide-sask-pulse-meat-1.4989859>
- Intergovernmental Panel on Climate Change. (2018). *Global Warming of 1.5°C*. Retrieved from <https://www.ipcc.ch/sr15/>
- Intergovernmental Panel on Climate Change. (2019, August). *Climate Change and Land*. Retrieved from <https://www.ipcc.ch/report/srccl/>
- Jessri, M., & L'Abbe, M. (2015). The time for an updated Canadian food guide has arrived. *Applied Physiology, Nutrition, and Metabolism*, 40(8), 854-857. doi: 10.1139/apnm-2015-0046
- Jørgensen, M., & Phillips, L. (2011). *Discourse Analysis as Theory and Method*. London, UK: SAGE Publications.
- Katamay, S., Esslinger, K., Vigneault, M., Johnston, J., Junkins, B., Robbins, L., Sirois, I., Jones-McLean, B., Kennedy, A., Bush, A., Brulé, D., & Martineau, C. (2007). Eating Well with Canada's Food Guide (2007): Development of the Food Intake Pattern. *Nutrition Reviews*, 65(4), 155-166. doi: 10.1301/nr.2007.apr.155-166
- Kepkiewicz, L., & Dale, B. (2019). Keeping 'our' land: property, agriculture and tensions between Indigenous and settler visions of food sovereignty in Canada. *The Journal of Peasant Studies*, 46(5), 983-1002. <https://doi.org/10.1080/03066150.2018.1439929>
- Kotler, P., & Zaltman, G. (1971). Social Marketing: An Approach To Planned Social Change. *Journal of Marketing*, 35, 3-12. DOI: 10.2307/1249783
- Kuhnlein, H., Erasmus, B., Spigelski, D., & Burlingame, B. (2013). Indigenous Peoples' food systems & well-being. Food and Agriculture Organization of the United Nations Centre for Indigenous Peoples' Nutrition and Environment. <http://www.fao.org/3/i3144e/i3144e.pdf>
- Kuhnlein, H., & Receveur, O. (2007). Local Cultural Animal Food Contributes High Levels of Nutrients for Arctic Canadian Indigenous Adults and Children. *The Journal of Nutrition*, 137, 1110-1114. DOI: <https://doi.org/10.1093/jn/137.4.1110>
- Lachapelle, E., Borick, C., & Rabe, B. (2012). Public Attitudes toward Climate Science and Climate Policy in Federal Systems: Canada and the United States Compared. *Review of Policy Research*, 29(3), 334-357. DOI: 10.1111/j.1541-1338.2012.00563.x
- Lakoff, G. (2010). Why it Matters How We Frame the Environment. *Environmental Communication*, 4(1), 70-81. DOI: 10.1080/17524030903529749

- Lane, G., Nisbet, C., & Vatanparast, H. (2018). Dietary habits of newcomer children in Canada. *Public Health Nutrition*, 22(17), 3151-3162. doi:10.1017/S1368980019001964
- Latta, A. (2007). Locating Democratic Politics in Ecological Citizenship. *Environmental Politics*, 16(3). 377-393. DOI: 10.1080/09644010701251631
- Leipold, S., Feindt, P., Winkel, G., & Keller, R. (2019). Discourse analysis of environmental policy revisited: traditions, trends, perspectives. *Journal of Environmental Policy & Planning*, 21(5), 445-463. DOI: 10.1080/1523908X.2019.1660462
- Lim, J., & Seo, H. (2009). Frame Flow Between Government and the News Media and Its Effects on the Public: Framing of North Korea. *International Journal of Public Opinion Research*, 21(2). 204-223. doi:10.1093/ijpor/edp011
- Little, S. (2019, September 27). 120K people pack Vancouver, Victoria streets for Climate Strike, marches held around B.C. *Global News*. Retrieved from <https://globalnews.ca/news/5962218/vancouver-climate-strike-2/>
- MacGregor, S. (2007). No Sustainability without Justice: A Feminist Critique of Environmental Citizens [Conference Paper]. PSA Conference, Bath, U.K. [https://www.academia.edu/1847800/No\\_sustainability\\_without\\_justice\\_A\\_feminist\\_critique\\_of\\_environmental\\_citizenship](https://www.academia.edu/1847800/No_sustainability_without_justice_A_feminist_critique_of_environmental_citizenship)
- MacGregor, S. (2014). Only Resist: Feminist Ecological Citizenship and the Post-politics of Climate Change. *Hypatia*, 29(3), 617-633. <https://doi.org/10.1111/hypa.12065>
- Machin, D. (2013). What is multimodal critical discourse studies? *Critical Discourse Studies*, 10(4), 347-355. DOI: 10.1080/17405904.2013.813770
- MacRae, R., Cuddeford, V., Young, S., & Matsubuchi-Shaw, M. (2013). The Food System and Climate Change: An Exploration of Emerging Strategies to Reduce GHG Emissions in Canada. *Agroecology and Sustainable Food Systems*, 37(8), 933-963. DOI: 10.1080/21683565.2013.774302
- Maibach, E., Nisbet, M., Baldwin, P., Akerlof, K., & Diao, G. (2010). Reframing climate change as a public health issue: an exploratory study of public relations. *BMC Public Health*, 10(299), 1-11. <https://doi.org/10.1186/1471-2458-10-299>
- Mason, P., & Lang, T. (2017). *Sustainable Diets: How Ecological Nutrition Can Transform Consumption and the Food System*. Oxon, UK: Routledge.
- Mayes, C., & Thompson, D. (2015). What Should We Eat? Biopolitics, Ethics, and Nutritional Scientism. *Bioethical Inquiry*, 12, 587-599. DOI: 10.1007/s11673-015-9670-4
- Meadowcroft, J. (2016). Let's Get This Transition Moving!. *Canadian Public Policy*, 42, S10-S17. DOI: 10.3138/cpp.2015-028

- Merrigan, G., Huston, C., & Johnston, R. (2012). *Communication Research Methods: Canadian Edition*, Toronto: Oxford University Press.
- Mosby, I. (2014). *Food will win the war: the politics, culture, and science of food on Canada's home front*. Vancouver: UBC Press.
- Mudry, J. (2010). Counting on Dinner: Discourses of Science and the Refiguration of Food in USDA Nutrition Guides. *Environmental Communication*, 4(3), 338-354.  
DOI:10.1080/17524032.2010.499213
- Myers, T., Nisbet, M., Maibach, E., Leiserowitz, A. (2012). A public health frame arouses hopeful emotions about climate change. *Climactic Change*, 113, 1105-1112. DOI 10.1007/s10584-012-0513-6
- Nath, J. (2010). 'God is a vegetarian': The food, health and bio-spirituality of Hare Krishna, Buddhist and Seventh-Day Adventist devotees. *Health Sociology Review*, 19(3), 356-368. DOI: <https://doi.org/10.5172/hesr.2010.19.3.356>
- Nisbet, M. C., & Newman, T. P. (2014). Ch. 28: Framing, The Media, and Environmental Communication. *Routledge handbook of environment and communication*. Abingdon, Oxon: Routledge.
- Peet, K., & Harrison, K. (2012). Historical legacies and policy reform: diverse regional reactions to British Columbia's carbon tax. *BC Studies*, 173, 97-122.
- Peterson, A., Davis, M., Fraser, S., & Lindsay, J. (2010). Healthy living and citizenship: an overview. *Critical Public Health*, 20(4), 391-400. DOI: 10.1080/09581596.2010.518379
- Power, E. (2008). Conceptualizing Food Security for Aboriginal People in Canada. *Canadian Journal of Public Health*, 99(2), 95-97. DOI: 10.2307/41995048
- Rachul, C. (2016). *Digesting data: The social and ideological actions of Eating Well with Canada's Food Guide* (Doctoral dissertation). Retrieved from Carleton University Research Virtual Environment. (<https://doi.org/10.22215/etd/2016-11411>)
- Raso, K., & Neubauer, R. (2016). Managing Dissent: Energy Pipelines and "New Right" Politics in Canada. *Canadian Journal of Communication*, 41(1), 115-133. DOI: <https://doi.org/10.22230/cjc.2016v41n1a2777>
- Rosenbloom, D., Haley, B., & Meadowcroft, J. (2018). Critical choices and the politics of decarbonization pathways: Exploring branching points surrounding low-carbon transitions in Canadian electricity systems. *Energy Research & Social Science*, 37, 22-36. <http://dx.doi.org/10.1016/j.erss.2017.09.022>

- Rosenbloom, D., & Meadowcroft, J. (2014). The journey towards decarbonization: Exploring socio-technical transitions in the electricity sector in the province of Ontario (1885-2013) and potential low-carbon pathways. *Energy Policy*, 65, 670-679. <http://dx.doi.org/10.1016/j.enpol.2013.09.039>
- Rosenbloom, D., Meadowcroft, J., Sheppard, S., Burch, S., & Williams, S. (2018). Transition Experiments: Opening Up Low-Carbon Transition Pathways for Canada through Innovation and Learning. *Canadian Public Policy*. doi:10.3138/cpp.2018-020
- Russill, C. (2008). Tipping Point Forewarnings in Climate Change Communication: Some Implications of an Emerging Trend. *Environmental Communication*, 2(2), 133-153. DOI: 10.1080/17524030802141711
- Sahota, H. (2019, July 9). Governments are finally calling climate change what it is: an emergency. *TAF*. Retrieved from <https://taf.ca/governments-are-finally-calling-climate-change-what-it-is-an-emergency/>
- Schubert, A., & Láng, I. (2005). The Literature Aftermath of the Brundtland Report ‘Our Common Future’ A Scientometric Study Based on Citations in Science and Social Science Journals. *Environment, Development and Sustainability*, 7, 1-8. DOI 10.1007/s10668-003-0177-5
- Scott, J., & Marshall, G. (2009). *A Dictionary of Sociology*. Oxford University Press.
- Seed, B., & Rocha, C. (2018). Can we eat our way to a healthy and ecologically sustainable food system? *Canadian Food Studies*, 5(3), 182-207. DOI: 10.15353/cfs-rcea.v5i3.258
- Simpson, J., Jaccard, M., & Rivers, N. (2007). *Hot Air: Meeting Canada’s Climate Change Challenge*. Toronto, Canada: McClelland & Stewart Ltd.
- Skinner, K., Hanning, R., Desjardins, E., & Tsuji, L. (2013). Giving voice to food insecurity in a remote indigenous community in subarctic Ontario, Canada: traditional ways, ways to cope, ways forward. *BMC Public Health*, 13(1), 1-13. <http://www.biomedcentral.com/1471-2458/13/427>
- Sperl, A. (2013). *Climate Change Denial in Canada: An Evaluation of the Fraser Institute and Friends of Science Positions* (Master’s thesis). Retrieved from Carleton University Research Virtual Environment. (<https://doi.org/10.22215/etd/2013-07218>)
- Spoel, P., Harris, R., & Henwood, F. (2014). Rhetorics of Health Citizenship: Exploring Vernacular Critiques of Government’s Role in Supporting Healthy Living. *Journal of Medical Humanities*, 35, 131-147. DOI: 10.1007/s10912-014-9276-6
- Star, S., & Griesemer, J. (1989). Institutional Ecology, ‘Translations’ and Boundary Objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19, 387-420. <https://doi.org/10.1177/030631289019003001>

- Stoddart, M., & Smith, J. (2016). The Endangered Arctic, the Arctic as Resource Frontier: Canadian News Media Narratives of Climate Change and the North. *Canadian Review of Sociology*, 53(3), 316-336. <https://doi.org/10.1111/cars.12111>
- Stoddart, M., Tindall, D., Smith, J., & Haluza-Delay, R. (2017). Media Access and Political Efficacy in the Eco-Politics of Climate Change: Canadian National News and Mediated Policy Networks. *Environmental Communication*, 11(3), 386-400. <https://doi.org/10.1080/17524032.2016.1275731>
- Strauss, A., & Corbin, J. (1990). *Basic of qualitative research: grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.
- Tarasuk, V., & Mitchell, A. (2020). *Household food insecurity in Canada, 2017-18*. PROOF. <https://proof.utoronto.ca/wp-content/uploads/2020/03/Household-Food-Insecurity-in-Canada-2017-2018-Full-Reportpdf.pdf>
- Taylor, M., & Vaughn, A. (2018, October 8). Overwhelmed by climate change? Here's what you can do. *The Guardian*. Retrieved from <https://www.theguardian.com/environment/2018/oct/08/climate-change-what-you-can-do-campaigning-installing-insulation-solar-panels>
- Truman, E. (2018). Exploring the visual appeal of food guide graphics: A compositional analysis of dinner plate models. *British Food Journal*, 120(8), 1682-1695. DOI: 10.1108/BFJ-02-2018-0112
- The Truth and Reconciliation Commission of Canada. (2015). *Honoring the Truth Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada*. [http://nctr.ca/assets/reports/Final%20Reports/Executive\\_Summary\\_English\\_Web.pdf](http://nctr.ca/assets/reports/Final%20Reports/Executive_Summary_English_Web.pdf)
- Turner, B. (2016). We are all denizens now: on the erosion of citizenship. *Citizenship Studies*, 20(6-7), 679-692. <https://doi.org/10.1080/13621025.2016.1191432>
- Van Leeuwen, T., & Wodak, R. (1999). Legitimizing immigration control: a discourse-historical analysis. *Discourse Studies*, 1(1), 83-118. <https://doi.org/10.1177/1461445699001001005>
- Veeramani, A., Dias, G., & Kirkpatrick, S. (2017). Carbon footprint of dietary patterns in Ontario, Canada: A case study based on actual food consumption. *Journal of Cleaner Production*, 162, 1398-1406. <http://dx.doi.org/10.1016/j.jclepro.2017.06.025>
- Vogel, L. (2015). Food guide under fire at obesity summit. *CMAJ*, 187(9), e256. DOI:10.1503/cmaj.109-5064

- Wherry, A. (2019, September 28). Worried about climate change? You've got a tough decision to make. CBC News. Retrieved from <https://www.cbc.ca/news/politics/liberal-conservative-ndp-green-climate-change-election-2019-1.5298193>
- Willet, W., Rockstrom, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J., De Vries, W., and Murray, C. (2019). Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), 447-492. Retrieved from [https://doi.org/10.1016/S0140-6736\(18\)31788-4](https://doi.org/10.1016/S0140-6736(18)31788-4)
- Wood, T. (2019). The many voices of business: Framing the Keystone pipeline in US and Canadian news. *Journalism*, 20(2), 292-312. DOI: <https://doi.org/10.1177/1464884917717536>
- Value Chain Management Centre. (2014). "\$27 BILLION" REVISITED. Retrieved from <https://vcminternational.com/wp-content/uploads/2014/12/Food-Waste-in-Canada-27-Billion-RevisitedDec-10-2014.pdf>
- Yu, E., Malik, V., & Hu, F. (2018). Cardiovascular Disease Prevention by Diet Modification. *Journal of the American College of Cardiology*, 72(8), 2951-2963. <https://doi.org/10.1016/j.jacc.2018.02.085>