It’s not Just Food
Sustainable Food Security for Immigrants: Barriers and Opportunities
by
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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.
Abstract

Despite enough food production to feed everyone on the planet, there are 850 million people around the world who are food insecure. This includes people in developing and industrialized countries. Food insecurity may not be just “not having enough amounts of food” but “not having food that is appropriate according to culture and religion”. The global agri-food system has restricted access to food and resulted in environmental damage by displacing family farming, and leading to the establishment of industrial monocultures.

Canada, being a multicultural society, has immigrants from around the world with different ethno-cultural backgrounds and religions. This study takes a different perspective on food insecurity by linking food to culture and religion and the food system. The study has devised criteria based on sustainable food security criteria developed by Lima (2008). The criteria include physical and economic access to food, religious and cultural adequacy of food and the food system’s environmental and social effects.

The criteria were applied to the case study of Waterloo Region by examining existing policies and initiatives to address food insecurity in the Region. The case study analysis explores barriers and opportunities to foster sustainable food security for immigrants in Waterloo Region. The case study includes an embedded case study of South Asian Muslim community of immigrants in Cambridge, Waterloo Region.

The analysis of the case study findings reveals that in most cases the current food system of Waterloo Region is largely industrial and contains major gaps in fulfilling the criteria of access, sustainability, social justice, and cultural and spiritual attitudes. This food system only partially meets or even fails to meet the criteria. As evidenced in the case study, current
governance arrangements to address the issue of food insecurity result in exclusion of immigrant populations. The issue goes beyond food and emerges in other planning decisions like the allocation of public spaces.

Finally, this study recommends broader multicultural policy at the regional government level to include the issues of immigrants.
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YK-
Dedication

To my parents whose endeavors brought me to the point where I am today
To my uncle Makhfoor Rehman who taught me patience and how to live sustainably

To all immigrants who left their motherlands in hopes of bringing a change to their families and I wish every single one of them success.
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Chapter 1  Introduction

1.1 Food Insecurity in the World

Millions of people around the world suffer from hunger and under nutrition. The Food and Agriculture Organization of the United Nations (FAO) estimates that more than 848 million people were undernourished in 2003-2005, of which 16 million were from industrialized countries (Food and Agriculture Organization, 2010). In a recent announcement, FAO projected that the number of people globally on the brink of starvation reached a record high of 1.02 billion- or one sixth of the global population in 2009 (FAO, 2009). This is despite a clear consensus by scholars that the world currently produces enough food to feed the people on the planet (Lappe, et al., 1998).

Globalization has influenced every part of our lives including our food; our food systems have been globally integrated. Agriculture evolved from subsistence agriculture to a commercial agriculture in which food is considered as a commodity and farmer’s role is to produce food for the market. Traditional methods of agriculture have been replaced by industrial and technological ones over a period of fifty years, thereby encouraging heavy use of chemical fertilizers, pesticides, and other toxins. In many parts of the world, agriculture has become an export business, rather than a primary activity of food production for consumption at local levels. This has resulted in a significant food business for multinational corporations and inequities of access to food between rich and poor. Populations in the affluent North have access to more exotic foods and cheaper prices, while those in the South have limited access to food, which is offered at expensive prices. Similarly, communities in developing countries have been exposed to rising food prices (Mitchell, 2008). The current
industrialized food system globally also has socio-ecological implications which include the loss of social capital, degradation of the ecosystem, weakening food cultures, and encouragement of unhealthy, processed food.

Thus, communities around the world experience abundance and prevalent food insecurity, both in the form of food deficiency and of overconsumption (and in the affluent societies of the world this results in health concerns).

1.2 Food Insecurity and Immigrants

Commonly, immigrants from the developing countries come to the rich industrialized countries to escape poor economic conditions in their home countries. In 2005, there were 191 million people who left their home country (Pries, 2006). According to a longitudinal survey of immigrants to Canada produced by Statistics Canada an estimated 164,200 immigrants aged 15 and older, established permanent residence in Canada in the period between October 2000 and September 2001. Well-being of new-comers or immigrants, who usually have limited resources, reduced social networks, cultural and language barriers, becomes more vulnerable as they arrive in Canada. Food security remains a challenge for many of these immigrants. Food insecurity is generally linked with unemployment, high housing and utility costs, poverty, and lack of education. With regards to access to food, immigrants encounter processed food to which they are not accustomed in their country of origin. In other words, their food becomes culturally inappropriate, and they suffer from food insecurity. Therefore, promotion of sustainable food security (or, as this study proposes, the fostering of sustainable food security for immigrants) is a real issue for Canada.
1.3 Research Question

This study determines the barriers that exist for immigrants/new Canadians and identify policies that foster a culturally appropriate local food system in southwestern Ontario. The goal is to develop the potential for a local food system as this has been a vastly under-researched area on local, national, and international levels. Previous research has focused on the use of food banks by immigrants and their dietary intakes (Whale, 1993 and Rush et al, 2007). This study will analyze the impact of such policies on the social and ecological sustainability of the area and find ways to foster healthy communities and sustainable food security for immigrants/new Canadians. It does so by addressing the following research questions:

- What are the barriers and opportunities to fostering sustainable food security for immigrants in South-western Ontario?
- What are the characteristics of a sustainable culturally appropriate food system?
- What policies are in place to help achieve a local food system that provides culturally appropriate food?

1.3.1 Rationale

Healthy food is an essential component of community well-being. This study uses the definition of sustainable food security as given by Lima, 2008, which is:

*Sustainable Food Security exists when all people have and exercise a stable access (physical and economic) to healthy and culturally-appropriate food, in a food system that contributes to biophysical sustainability, social integrity and social justice, and which offers favorable conditions for attitudes and choices that help promote these goals. Finally, the people must indeed have such attitudes and make such choices.*

This notion of sustainable food security is reviewed to understand how it affects the well-being of immigrant communities while maintaining ecological integrity.
This thesis focuses on sustainable food security as a new concept worthy of research; this concept promotes food security for immigrants in a way that protects the ecosystem and fosters well-being of immigrant communities. Additionally, it also values socio-environmental integrity and sustainability.

The concept of sustainable food security integrates various elements of a social, economic, environmental, and political nature. By having such a broad scope, it can be viewed in various contexts to understand the many implications for ecosystem health of a community. Combining these perspectives will also help provide the opportunity to find new approaches to foster sustainable food security for immigrants.

Detailed analysis of the existing responses to the challenge of food insecurity will allow the researcher to identify how those multiple factors relate in the food system. This analysis underscores the complex challenge to sustainable food security, resulting from this relationship. The local level is considered the most plausible place to make a difference. Community based organizations at the grassroots level, farmers, and local councils are the actors that have a particularly greater influence at the local levels of governance. Resting with only a few players is the privilege to influence governance at higher levels.

This case study on the Region of Waterloo will help foster a sustainable food system for immigrants, which can be replicated in other Canadian municipalities or regional governments in urban settings.
1.4 Contribution of the Study

The first contribution of the study is a better understanding of challenges to achieving sustainable food security in local communities, particularly for new immigrants. Secondly, an investigation into the capacity of existing policies and institutions that address the problem of food insecurity will provide insight to governance at the local level. As this study examines a distinct group of immigrants, it is possible to identify their challenges in settlement, which can be generalized to other contexts.

The study, while examining a governance structure, shows that policies and regulations at the local level result in different types of barriers and opportunities. Community level barriers can be converted into opportunities, as they are within the control of the community and can also be overcome through policy at the local level.

The research also has also potential relevance to many people at various levels. Municipal governments will find it useful in planning and helping new immigrants achieve sustainable food security, while non-governmental organizations and farming associations/coalitions can use it to strengthen their resource base. Diverse ethnic communities will also benefit by having access to available resources, along with community groups working on food security, healthy communities, social justice and ecological sustainability will also find this research helpful for their activities. Lastly, the Ontario Ministry of Agriculture can make use of the research to facilitate sustainable agriculture.
1.5 Methodology

A case study methodological approach is used to analyze the existing policies and programs in place while addressing the challenge of hunger/food insecurity at the local level of Southwestern Ontario. This study involves a thorough review of literature from multiple disciplines to achieve the criteria of sustainable food security, which is presented in Chapter 2. The study discusses the elements of sustainable food security for immigrants and the implications of global industrialized food system for communities and new immigrants in the context of Canada and southwestern Ontario. The study applies such criteria to those programs (either run by government or nongovernmental organization) in the case study area of Waterloo Region (Ontario, Canada) to examine and explore the gaps. Recommendations for further action are made based on the results obtained.

1.5.1 Rationale for Methodology

The nature of the study itself provides the rationale for the selected methodology. First, the primary question is about how regional governments can foster sustainable food security for immigrants, which requires elucidation to understand the issue. Second, this study is about present-day events taking place in a real world context, so the research depends on direct observation and from analysis of case studies. (Yin, 2003a) suggests that when the research asks a how or why question about a contemporary set of events within its real life context, and there are many more variables of interest than the data point, a case study approach is appropriate.
1.6 The Case Study Site: Region of Waterloo (Ontario, Canada)

The case study is about the Region of Waterloo, Ontario, Canada. Waterloo Region is located in southwestern Ontario, in the centre of the Great Lakes region. It has an area of 1382 km\(^2\) with a population of 525000 people (Region of Waterloo, 2010). The region comprises three urban municipalities of Cambridge, Kitchener, and Waterloo and the four rural townships of North Dumfries, Wellesley, Wilmot and Woolwich. (See appendix 1, Map1). Waterloo Region (or the tri-city area) of southwestern Ontario is a midsized urban municipality, and provides an analogous context to other North American urban centers (Dickson, 2009).

Surrounded by a large area of fertile agricultural land, the Region of Waterloo is home to three farmers’ markets and other initiatives pertaining to food system. Two post secondary institutions: the University of Waterloo and Wilfred Laurier University (City of Waterloo, 2009) in the Region also offer academic and research involvement in food systems. Diverse population of students in these institutions and cities also offer different food cultures.

Similarly, the Waterloo Region Food System Roundtable is an initiative that discusses and advocates for a healthy food system, (Waterloo Region Food System Roundtable, 2009).

Despite these distinctions, Waterloo’s resemblance to other municipalities will provide the opportunity to replicate findings of the study in other regions of the province and country.

Agriculture has long been a part of the history of Waterloo Region. Abraham Erb, a young Mennonite from Pennsylvania, arrived and started farming in the Region in 1806. He was followed by other Mennonite families and later by German immigrant families (Foodlink Waterloo Region, 2009). Amish and Mennonite people generally live in very traditional ways and farming is a popular source of livelihoods, especially small scale farming. In the 19th
century, agriculture was receiving support from the county government in the form of financial grants for agricultural fairs and community based organizations and representation at the Ontario College of Agriculture (Region of Waterloo, 2009a).

Economic prosperity in the 20th century brought technology to agriculture, like other sectors of life, and eventually connected local food system to activities at local and global levels. Consequently, Waterloo became part of the global agri-food system (Lima, 2008). However, Mennonite and Amish traditions still contribute to the existence and preservation of small scale farming in the Region. In other words, modern technology and wealth were unable to break the bonds of those people to the land.

In an effort to abandon the county government system, Waterloo County was made the Region of Waterloo in 1973 by the provincial government, with the current arrangement of seven municipalities. A regional council of elected representatives became the primary policy-making body for the Region. It is the responsibility of different levels of government to make decisions regarding food. The provincial government holds some constitutional authority over the decisions being made at the regional level, but the regional government of Waterloo is independent in policy-making for public health, social services, planning, and other areas of services related to food security (Region of Waterloo, 2009b). Some of the powers are delegated to cities and townships within the Region, which make their own food retailing and zoning bylaws.

Waterloo Region is growing with an expected population growth of more than 50% within the next 40 years (Region of Waterloo, 2009c). The demographic composition of the
Region will change dramatically with this population growth, especially as the number of new immigrants grows. This situation will result in more demand for food.

Within this case study is a second case, that of the immigrant Muslim community from South Asia. Yin (2003) describes this type of case study research as embedded case study design. This group was chosen because the author has direct knowledge and cultural understanding of the group. Moreover, it is a rapidly growing immigrant group within the Region of Waterloo as well as other mid-sized to large cities in Canada. In addition, the author can serve as a participant observer, and has access to members of the local Muslim community. Participant observation, as a research method, might be described as a data collection method in qualitative research, in which the researcher assumes a role and may actually participate in the events being studied in a case study (Yin, 2003). Yin (2003) argues that participant observation is a valid qualitative method and has been used more often in anthropological studies of different cultural and/or social groups. Since this study involves the investigation of cultural groups, participant observation will be imperative for the study. As a researcher, I used this technique to immerse myself in the community being studied, and observe the real life settings and identify persons as key informants. This helped strengthen the process and data collection of interviews. Observations recorded using both the methods of interviews and participant observation also increased the validity of data.

1.7 Outline of Thesis Chapters

This thesis is broken down into the following chapter themes: methods, literature review, case study background, barriers, opportunities, and conclusions.
Chapter Two constitutes a broad overview of literature on sustainability, immigration, and sustainable food security in order to demonstrate that what the criteria for sustainable food security are for immigrants.

Chapter Three is comprised of details of the methods used to answer the research questions. A description of the key informant interviews and analysis of literature is also used in addressing the research questions outlined.

Chapter Four provides an overview of the case study site chosen for the study, which is the Region of Waterloo, Ontario, Canada. This will include information on geography, demographics, policies in place, and local initiatives to foster local sustainable food systems.

Chapter Five explains barriers and opportunities that were noted in achieving a culturally-appropriate local food system in the case study.

Chapter Six concludes the thesis by summarizing the thesis and providing thoughts on what governments, communities, and other stakeholders can do to foster sustainable food security and strengthening local agricultural initiatives. It will make recommendations for further research in addition to highlighting the scholarly contributions of the study.
Chapter 2  Sustainable Food security Explored

2.1 Introduction

Food security is a concept that has long been on the issue agenda in Canada. Recently, there has been an increasing amount of discussion on the state of our food system, among scholars and activists and policy makers. Remedies to address the issue of food insecurity include fostering self-sufficiency through agricultural production, government intervention to distribute surplus food, and efforts by charity organizations to enable low-income households to access food. However, choosing the appropriate remedy depends on how food security is defined and that definition varies. Defining a problem is very important as Peter Eisinger (Eisinger, 1998) says "Definition is important because it underwrites our collective responses…. Definition implies a choice, a particular way of seeing a problem among a range of alternatives. Policy is determined in part by that choice", (Eisinger, 1998). This Chapter explores the concept of food security and its relation to the food system. It incorporates the principles of sustainability into the understanding of food security and discusses policy options to foster sustainable food security.

2.2 Food Security

Food insecurity remains a challenge on the international level and globally the number of people facing food insecurity is increasing. Worldwide, the Food and Agriculture Organization of the United Nations (FAO) estimates that 848 million people were undernourished in 2003-2005, of which 19 million were from industrialized countries (FAO,
2010). From the public health point of view, food insecurity has become more pronounced as a public health concern in many affluent countries of the ‘North’ including Canada (Tarasuk & Eakin, 2003). This is despite the fact countries like the United States, Canada, the United Kingdom, Australia and New Zealand are producing sufficient quantities of food at the national level to adequately feed all of their citizens. In fact, food is one of the major export commodities of these countries. Therefore, the problem of food insecurity is that of access to adequate food resources, not the supply or production of the amount of food (Riches, 1999).

Food insecurity re-appeared as an important issue in many industrialized countries during the late 1980s and in the 1990s. There is a clear distinction between food insecurity in the affluent North and starvation and malnutrition due to famine and widespread undernourishment in the ‘South’ (Dreze & Sen, 1989), although (Dreze & Sen, 1989) also argue that overconsumption and resulting health issues in Europe and North America are also considered a form of food insecurity. Bread for the World Institute (2010) estimated that in 2010 alone, around 854 million people or 20% of the developing world’s population were undernourished. Globally, the incidence of food insecurity has increased, affecting both developing and developed nations. However, developed countries do not experience it at the larger scale that exists in developing countries. With the increase of poverty during the 1990s, the number of people struggling to get adequate food in the developed countries, increased. Dreze & Sen (1989) conclude that neo-liberal policies in developed countries resulted in inequality, which, in turn, resulted in food insecurity for vulnerable members of the society. Findings from Canadian Community Health Survey (CCHS 2.2) indicate that 9.2% of Canadian households experienced food insecurity in 2004 (Health Canada, 2010).
Given the amount of food produced within the country, this is a high figure in itself. Hunger and malnutrition due to lack of access to food is a major public policy issue in the affluent ‘West’. Similarly, need was felt by governments to address the issue on international level through the establishment of institutions.

Institutional tools to fight hunger and food insecurity on a global scale began to be implemented after the Second World War when United Nations and its affiliated body the Food and Agriculture Organization (FAO) were created. The FAO was created with the objective of promoting international efforts to ensure humanity’s freedom from hunger. It was only in the mid-1970s that food security evolved as a concept, during the discussions of international food problems at a time of global food crisis. Initially the focus was on supply chain to ensure availability and, to some degree, the price stability of basic food items nationally and internationally (FAO, 1997a). In 1974, the World Food Summit was organized to address global concerns of volume and stability of food supplies so that food security can be achieved for all people.

With all the efforts at local, national, and international levels, it is important to acknowledge that the definition of food security has a variety of variables and its definition continues to change. In 1996 World Food Summit came up with its most inclusive definition describing food security as:

*Security, at the individual, household, national, regional and global levels exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food, to meet their dietary needs and food preferences for an active and healthy life* (FAO, 1997b).
As Dreze & Sen (1989) have shown, hunger is a multifaceted problem resulting from biological, social, and economic deprivations. Therefore, it can be viewed in both an economic and a socio-ecological perspective. In an economics perspective, food security is considered as a problem of production and liberalizing free trade (Watkins, 1996). Adoption and modern food production technologies and population growth are associated with food insecurity, especially in Third world countries. Technological fixes and increasing agricultural production were proposed as the main remedies for the problem of food security by world leaders in order to meet the needs of rising population. Furthermore, technology like modern production methods, fertilizers, herbicides, irrigation has increased growth yield. The green revolution was a strategy in this direction, through which increased food productivity was achieved by the application of agricultural inputs. Yet this dissemination of modern technological packages to Third-world countries was unable to solve the problem of food insecurity through increased production because of the lack of modern agriculture technology and limited resources. On the other hand, there are environmental costs associated with increased productivity through the use pesticides and fertilizers. However, this approach of technological solutions to the problem predominates in determining policy and institutional arrangements (Lezberg, 1999). Critics of the modern technological approach point out that despite sufficient food production to feed the world population, millions continue to go hungry. The problem, they argue, is not of production, but entitlements available to the poor, as there has been a real-time increase in the production of food and incidence of food insecurity (Sen, 1999). By entitlement, critics mean that it is a matter of power, especially the economic power that enables a person to get food. Equitable
distribution of food is offered as a solution to the problem of food insecurity. Sen (1999) views food insecurity as consequence of poverty and lack of access to entitlements. He argues that the lack of entitlements for the poor means having limited access to health care, housing, education and food. This approach focuses on the need for instruments (including controls on the market, government assistance, and charitable services of voluntary organizations) to improve access to entitlements, and asks for balancing inequitable food production. This is particularly used in a global context; with focus on the need to improve food security in developing countries. However, in the context of industrialized countries, the problem of food security is looked from the angle of access through normal distribution channels.

The definition of food security, when viewed from the context of industrialized countries, particularly Canada and the United States, takes on different parameters than the definition of food security suitable for the context of developing countries. This definition significantly differs from the technological and entitlement approach, as food is produced in abundance in these countries. But, food insecurity also remains a big problem that needs immediate attention.

Lima (2008) conducted a study on sustainable food security and pointed to some major gaps in the definition by the FAO, which included sustainability and food sovereignty. In the above mentioned definition “physical access” can be translated into policies that ensure access of all people while, “food to meet their […] food preferences” could be translated into culturally appropriate food. Therefore, if assessed using criteria based on “sustainable food security”, as defined by Lima (2008), the number of food insecure people
can potentially increase, given the broader scope of the definition. This relationship between food and culture, and the aspects of physical access are discussed in detail later in this chapter. Taking a systems approach, the next section talks about the Food System, and elaborates on how the global food system has categorized food as a commodity, affects farming, food production, distribution, and consumption at local levels.

2.3 Food as a Commodity in the Conventional Food System

In our contemporary food system and its structures (distribution, production, transportation and consumption), one important element exists as a characteristic of the entire system: the market commodity nature of food. In most parts of the world food is exchanged within an economic setting (in return for capital). According to economic theory, food is purchased and sold by individuals under free market competition and is subject to the power of the market (Pais, 2009).

However, anthropologist Anthony Winson writes that while our capitalist society allows food to be subject to the same economic laws that apply to other commodities, food is also linked to particular social and cultural characteristics that other commodities do not possess. Food is different from other commodities on the market in that it is explicitly and intrinsically linked to our human existence (Winson, 1993). While possessing another commodity provides opportunity for social benefits, the possession of food ensures survival.

This perception of food as a commodity is important to consider when thinking about the role that individuals play within the food system. In our current globalized food system,
individuals are reduced to consumers within a market and consequently, food is classified as a commodity available to consumers having purchasing power in the market place. Similarly, other practices in the current food system are believed to be unsustainable.

2.3.1 Unsustainable Food System

The term “food system” encompasses a whole range of food activities ranging from production, consumption, retailing, and distribution. The term “food system” instead of simply “food” shows the complexity that is embedded in the food system; all the contributing factors and actors are greatly interrelated. The food system approach is mostly based on the sustainability principles.

Proceeding with this notion that food is a market commodity, we see that the North American food system has undergone corporate agglomerations. Economies of scale manifest themselves as larger companies such as Monsanto and Cargill purchase smaller companies and merge with others. Such transnational corporations also look to vertically integrate by taking over all levels of the food industry (Pais, 2009). Companies try to gain control over everything from seeds and animals, to grain and meat processing, to packaging (Lee, et al., 2002). The result is an oligopoly, an entire industry dominated by only a handful of companies. The inherent characteristics of oligopolies usually leave consumers exploited.

Pais (2009) reports that the combined effect of commoditization of food and the oligarchic culture of the food industry has led to unsustainable practices in all elements of the food system, including food production, processing and distribution. For instance, in the production of food, industrialized agriculture resulted in the creation of monocultures of
industrial farms that control the rural landscape. Technological advancement changed the ways of farming. Brewster Kneen writes, “Industrialization of farming and the blanket application of technology have been the driving factors that have transformed traditional agriculture into agribusiness (Kneen, 1995). Traditional farming has been transformed into growing agriculture enterprises, geared towards producing the highest profit. Similarly, the distribution, transportation and consumption of food in the current food system are also unsustainable, making the whole food system unsustainable. As Hendrickson & Heffernan (2002) argue, the current food system of North America is not sustainable. Pais concludes that it is vital to move away from a “profit-for-few food system”, to a sustainable one that provides equitable access to food for all.

2.3.2 Sustainability and Food System

Sustainability is the central point of ongoing debate on the future of the planet both in general and particularly in the food system. Defining the term sustainability can be difficult, since it is vague for widespread application and is a highly subjective term with different meanings for different individuals (Gibson, Hassan, & Holtz, 2005). For instance, the seed business giant Monsanto and Madison Area Community Supported Agriculture (MACSA) Coalition in Wisconsin (U.S.), both portray themselves committed to sustainable food production (Hendrickson & Ostrom, 1995; MACSAC, 1996) cited in (Kloppenburg Jr., Lezberg, Master, Stevenson, & Hendrickson., 2000), even though Monsanto’s products like herbicide resistant soybean are disliked by MACSA’s farmers and their associated consumers.

The notion of a sustainable food system considers several factors (i.e. bio-physical, social and economic) and actors involved (i.e. farmers, food processors, policy makers, and
others), and the complex relationship that exists among them (Lima, 2008). This study is based on Gibson’s approach to sustainability, which portrays sustainability to be a process that considers social, ecological and economic aspects dependent on each other, and interrelated. Decision-making, under this approach, takes into account both short and long-term objectives and covers both local and global space (Gibson et al., 2005). Sustainability should be a major characteristic of the food system, and most authors are critical about the leading trends in food system, especially of the globalized food system (Koc & Dahlberg, 1999). Therefore, it should be reflected in the definition of food security.

Lima (2008) pointed out that the FAO’s definition of food security does not include the production side of the food, i.e. the ways in which food is produced. Food can be produced in ways that are not sustainable, harming the ecosystem, in addition to social and cultural values. Food production can result in social inequalities and challenges cultural institutions. For example, current industrial food production, which relies on heavy use of fertilizers and is a threat to ecosystem integrity, has created social inequalities. Similarly fast foods have contributed to diminishing cultural life around food in the industrialized societies. This food system is depriving local farmers of their livelihoods and resulting in the increase of corporate concentration, in additional to its ecological and social costs. Kneen, (1995) points out that “Cargill made 51 billion dollars last year derived from component of everything we eat through its hands at some point in its journey from farm to supermarket”. 

The shift in agricultural production and distribution systems towards greater commercialization and globalization has also resulted in the loss of crop biodiversity (Goland & Bauer, 2004).
On the other hand, a sustainable food system is based on the principles of sustainability and tries to ensure long-term food security with the provision of social justice and ecosystem integrity. A sustainable food system, grounded on the principles of sustainability, ensures for a state of food security that reasserts proper nutrition taking into consideration social and ecological integrity. Additionally, a healthy and sustainable food system provides a state of food security that provides protection from external shocks and susceptibility (e.g. market fluctuation, food safety scares, weather variations), and that is capable of sustaining in the long term (Lima, 2008).

2.4 Sustainable Food Security

To assess the sustainability of a food system, Lima (2008) conducted a study on sustainable food security and recommended the following conditions for sustainable food security, after identifying some major gaps in the FAO’s definition of food security. Lima identified three major gaps relating to sustainability, food sovereignty and food insecurity from over consumption and poor eating habits. According to Lima, a state of sustainable food security exists when:

1. All people have stable physical and economic access to healthy and culturally appropriate food.

2. The food system respects and promotes equity and social justice, strengthening social integrity.

3. The food system contributes to bio physical sustainability. It promotes bio-diversity and ecosystems integrity.
4. Consumers have a food environment with favorable conditions to choosing foods that meet the three criteria above.

5. People make choices and have attitudes that are beneficial to the promotion of sustainable food security.

Lima summarized the above-mentioned criteria into the following definition of sustainable food security:

*Sustainable food security exists when all people have and exercise a stable access (physical and economic) to healthy and culturally-appropriate food, in a food system that contributes to bio physical sustainability, social integrity and social justice, and which offers favorable conditions for attitudes and choices that help promote these goals. Finally, the people must indeed have such attitudes and make such choices.*

### 2.5 Criteria for Sustainable Food Security for Immigrants

Using Lima's (2008) definition, the criteria of what makes a food security sustainable for immigrants can be developed. Lima’s definition seems to be quite comprehensive, but it still has important gaps. This study highlights one major gap: that is, the spiritual requirements of food by certain groups and communities.

A food might be culturally-appropriate but not necessarily comply with the religious/spiritual requirements of a certain faith group. Lima considers culture and religion at the same levels, but there is a clear distinction between culture and religion and these two elements are not interchangeable or reducible to the same category. Culture is generally considered as a set of customs, values and rules, which individuals follow as members of a particular community. It provides a pathway for people to interact with the rest of the world.
There is no doubt that cultural factors underline the ways of preparation and consumption of food.

Similarly, food plays an important role in our daily lives. We need to eat for our survival; however food is not only valued for the alleviation of hunger, but it also has deeply-rooted connections to culture and communities. Food is only one aspect of cultural traditions, yet it is probably one of the most persistent. It is difficult to imagine any cultural group or individual that does not derive a sense of belonging from the taste or smell of at least one food. But food is much more than a tool of survival. Food is a source of pleasure, comfort and security. Food is also a symbol of hospitality, social status, and religious significance. Cow’s or sheep's brain and eyeballs, frog's legs, hot tea with fermented yak butter, or animal blood are not considered to be universal foods, but they are relished by some people. Further, eating foods with one’s fingers may be considered ill-mannered by some, while others may consider eating with a knife and fork unethical. What we select to eat, how we prepare it, serve it, and even how we eat it are all factors profoundly touched by our individual cultural inheritance. Even a brief glance at diets around the world reveals the strange fact that people do not only eat what is available; they eat only what they consider to be edible. What may be considered a delicacy by one group may be considered an abomination by others. What we eat, how we eat, and when we eat reveal the complex cultural arrangements that exist around food, the structure of the food system, and ongoing food policies.

Food also has a significant role in shaping social relationships and personal development. The way our food is prepared and consumed has implications for our mutual relationship in society. As Winson (1993) notes (cited in Riches, 2003), many commodities
serve to fragment our lives, while food, in terms of rituals of food preparation and consumption by communities play the role of integrating force and help to establish human existence as social existence. Jean-Anthelme Brillat-Savarin wrote in 19th Century, “Tell me what you eat and I will tell you what you are” (The Washington Post, 2006). Individual, social, cultural and economic factors affect the food choices. People from different cultures have their unique food choices, which are appropriate to their culture.

On the other hand, religion is based on a faith in the supernatural and believers of every religion demarcate some boundaries in terms of production, preparation and consumption of food. Canadian society contains people from various faith groups and their rights to practice their faith and religion are protected by the constitution. For the purpose of illustration, this study will focus explicitly on the experiences and practices of Muslims from South Asia in the Region of Waterloo. The study, however, does respect other religious and faith groups. According to Statistics Canada, Islam is the second religion with most adherents after different denominations of Christianity (Statistics Canada, 2001), and the number of Muslim immigrants to the Region is increasing. Therefore it is worthwhile to examine this topic focusing on the experiences of Muslim population in the Region of Waterloo.

Islam is a complete way of life and it covers every aspect of life in a great detail. The halal dietary laws determine which foods are “lawful” or permitted for Muslims. These laws are found in the Qur’an and in the Sunnah, the practice of Prophet Muhammad, as recorded in the books of hadith. Muslims follow the halal dietary laws to follow the Divine Orders. Allah orders them in the Qur’an (II: 172) “O, ye who believe! Eat of good things wherewith WE have provided you and render thanks to Allah if it is He whom ye worship. Similarly, on
another occasion the Qur’an orders “Eat of good things, we have provided for sustenance, but commit no excess therein” (Qur’an XX: 81).

This notion of ‘halal’ and ‘haram’ guides Muslims to various practices. For instance, Muslims do not necessarily prefer vegetables over meat; they can consume meat which is halal (like the kosher meat of Jews). Halal meat comes from a specified animal slaughtered in the name of Allah. In Sura 6 of the Quran, entitled “Cattle,” Muslims are instructed to eat the meat of animals upon which Allah’s name has been invoked. This is generally interpreted as meaning that an invocation has to be made at the time of slaughtering an animal, (Qur’an II: 173) and the blood is drained out of the body. Allah also orders in the Qur’an “Eat of that over which the name of Allah hath been mentioned, if ye are believers in His signs.” (Quran VI: 119). There are four categories of halal food mentioned in the Qur’an. Following translation from the verses of Qur’an mention those categories:

Forbidden for you are carrion, blood and pork, and what has been consecrated to other than Allah, and animals which have been strangled, and animals which have been killed by a blow, and animals which have fallen to their death, and animals which have been gored, and animals which wild beasts have eaten—except those you are able to slaughter properly.

Similarly, there are restrictions and permissions in relation to food. For instance, the meat of swine and carnivorous animals is strictly prohibited. Moreover, there are religious festivals requiring its believers to prepare and eat food in special ways. Muslims, on the occasion of ‘Eidu-duha’ need to sacrifice an animal, slaughtered in a specific way. After slaughtering by
community members, a joint meal is served to all the participants. Children also participate in these rituals.

Keeping in mind the above mentioned food requirements, followers of other religions also have to abide by some food laws. Canada being a multicultural country, accepts immigrants from all parts of the world and these immigrants come from different cultures and faith groups. Immigrants, when they arrive in Canada, find themselves in a new culture and new food system of their new country. In the case of Muslims, most of the Muslims in North America observe halal laws, but the current food system does not address their spiritual needs related to food and they therefore have challenges in observing the laws of their religion relating to food, (J. M. Regenstein & C. E. Regenstein, 2010, chap. 10).

It is widely agreed that water, food and shelter are the most important elements of human survival. Thus it becomes vital to address the needs especially the food-related needs of Canadians whether they are new or old immigrants. Every policy or service or system of Canada, including the food system, should take into account the changing demographics and multicultural identity of the country. The following section will discuss the changing demographics and food consumption in Canada.

In the North American context, especially in Canada, a sustainable food system should take into consideration the changing demographics of the country, along with other issues of social justice and ecosystem integrity.
2.6 Changing Demographics and Food Consumption in Canada

The changing ethnic mix of Canadian society together with changes in demographic have contributed to greater heterogeneity of food consumption. These changes have made Canada a multi-ethnic, multi-faith, and multi-cultural society. Religious freedom and respect for different religions is an integral part of our shared culture and is an important underlying principle of multiculturalism and democracy in the country.

Immigration has become Canada’s largest source of population growth and people from various ethno-heritages are making Canada their home. According to the Longitudinal Survey of Immigrants to Canada, by Statistics Canada, an estimated 164,200 immigrants aged 15 and older established permanent residence in Canada, between October 2000 and September 2001 (Tina Chui & Kelly Tran, 2003).

Unfortunately, many new immigrants are unable to adapt to Canadian society quickly, and find themselves in a low socio-economic status (Rush, Victor, Irwin, Stitt, & He, 2007). Settlement and integration of new immigrants greatly depend on their socioeconomic status.

Adaptability of immigrants to climate, working conditions and food culture becomes a great challenge for them. Coming from a different food culture, new Canadians find themselves in an industrialized society with industrialized food system. Considering the argument by Pollan (2008), that “eating should be based on traditions,” it is vital for immigrants in Canada and other parts of the world to look for their own traditional food. Food consumption is not only based on traditions, but there are other factors including social, economic, and cultural determinants that greatly affect the food consumption choices of
individuals and communities (Kuhnlein, 1989). The history of evolving food cultures has been a significant trend in Canada since its first inhabitants and with the changing demographics this history is getting more complex.

Like many other parts of Canada, the population of the Region of Waterloo is growing; it has been one of the fastest growing communities in the country and immigration is contributing to this population growth. Immigrants accounted for 22.3% of the Region’s total population. Waterloo Region is placed at 8th position in terms of total immigrant population, in Ontario, and is 13th in Canada, (Region of Waterloo, 2009d). Given the growing number of immigrants in the Region, it becomes essential to help them settle in a sustainable way allowing them to fulfill their dreams. Food is one of the components that receive little attention in terms of suitability for immigrants. Therefore a local Food System that ignores 22.3% population will not be a sustainable food system.

This study seeks to foster the representation of the immigrant population in the local food system by encouraging more inclusive policies that addresses these concerns. A food may be safe and nutritious, locally produced using organic methods of production, but it may not be culturally and religiously appropriate for immigrants from various parts of the world.

2.7 Culturally Appropriate Food and Immigrant Experience:

As discussed earlier, immigrants experience a significant cultural change and face different consumption patterns in Canada. These changes have immediate effects on their health and well-being as well as that of their families. They face the challenge of finding and accessing the food that is culturally appropriate to them. Welsh et al., (1998) conducted a study on food security for immigrants on three different ethnic groups in Toronto. The study reported that
it is very important for immigrants to find fresh and culturally acceptable food. Also referred to as specialty foods, ethnic foods are rarely found on major supermarket shelves, because they carry large volumes of food based on their assumption of the market demand. These specialty food items could be basic items for immigrants, as De Vita (1994) (cited in Koc & Welsh, 2001) argues; these ethnic foods would be vital items and most of the immigrants have to rely on small ethnic retailers. Welsh et al., (1998) also reported that finding quality food in Canada is another challenge for immigrants and especially for those whose daily food consists of fresh meat and fresh produce, while the broad range of food items sold by supermarkets is not considered ideally fresh. Similarly, Donald & Palmer (2006) argue that consumers with food knowledge usually look for rarely available foods. Terms like alternative, specialty, and authentic also represent food systems of specific ethnic, organic, fair trade or artisan products. These products come from different origins but have the commonality of attracting people in search of quality food.

Most of the immigrants are not familiar with the frozen foods and they do not relate frozen food to their food cultures. As the study by Welsh et al., (1998) found, many different groups emphasized freshness of their food and some groups were even unfamiliar with the frozen foods, which are very common in Canada. Other groups expressed a desire for catching fresh fish instead of frozen fresh commonly found in grocery stores. Another challenge reported by the study was lack of availability information on the food items. The above discussion clearly indicates the importance of culturally-appropriate food for immigrants in Canada. Therefore, given the immigrant experience, a food system that improves access to healthy and culturally-appropriate food, and at the same time ensures a
viable agriculture economy, will enhance the health of the communities. The current
industrial food system does not provide this opportunity to immigrants and contributes to the
loss of food sovereignty. In the industrialized world, instead of becoming a central point for
culture, food has become a business activity for people in which they participate as workers,
customers or consumers and owners and corporate shareholders (Kneen, 2002).

Therefore, immigrant communities try to buy their own ethnic food. Shiva, (2000) argues that cultural appropriateness is an essential condition of food security. Based on the
above discussion, we can say that immigrants are not food secure in Canada, if they are
unable to get their culturally appropriate food.

Thus, for the purposes of this thesis, sustainable food security can be defined as follow:

*Sustainable food security exists when all people have and exercise a stable access
(physical and economic) to healthy and culturally, as well as spiritually, appropriate
food, in a food system that contributes to biophysical sustainability, social integrity
and social justice, and which offers favourable conditions for attitudes and choices that
help promote these goals.

2.8 Current Responses to Food Insecurity

Governments in developed countries such as the United States and Canada address the issue
of food insecurity through a variety of direct and indirect policies. These include community
and public health programmes, agricultural, and fisheries policies, food and nutrition
standards, as well as general social welfare policies and public safety nets to protect the most
vulnerable members of society from going hungry (Riches, 1999).

At the Regional level, the Region of Waterloo has introduced the following food
security initiatives as reported by the Ontario Public Health Association
2.8.1 **The Food Bank of Waterloo Region**

The Food bank was created in 1982 as an emergency response to hunger. The Food Bank of Waterloo Region obtains and distributes about 3 million pounds of emergency food each year. Food banks do address immediate hunger, but they also encourage the unsustainable food system by creating partnerships with corporations to meet the growing demand. They contribute a lot to community food security, although the approach is not considered sustainable.

2.8.2 **Buy Local Buy Fresh Campaign**, 

This campaign was designed to make publicly available the information about the availability of fresh and local food. Under the campaign, a Buy Local Buy Fresh map has been developed to link consumers with the farmers in the area. Establishment of Food Link Waterloo Region was part of this effort.

2.8.3 **The Community Nutrition Worker Program**, 

The program has been in operation in the region since 1979, has been expanded to 19 sites. This program aims at proper and safe nutrition education for communities.

2.8.4 **Public Health Department of the Region of Waterloo**, 

The department is trying to ensure that food access issues are considered in the Region’s growth management strategy, including the promotion and support of community gardens and urban agriculture.
2.8.5 Food Advocacy

Food advocacy at the Regional level includes encouragement of debate and publication of information, which include the position papers by Ontario Public Health Association.

2.8.6 Nutrition for Learning Network

In Waterloo Region, the Nutrition for Learning Network is a network of community partners including the Canadian Living Foundation, Public Health, the Food Security Coalition of Waterloo Region, and the Waterloo County Women Teachers' Association. The nutrition programs that these partners support help to ensure equal opportunities for all children by providing them with nourishing food at the beginning of their school day.

2.9 Challenges for Immigrants to Obtain Food

The Kitchener-Waterloo Multicultural Centre is a not-for-profit organization, providing settlement services to diverse immigrant populations. They have now included food as part of their settlement strategy for immigrants in the Region of Waterloo. They conducted a study on access to food by immigrants in the Region and according to the study; immigrants are more likely to face challenges with food security than non-immigrants. Barriers that new Canadians face in accessing food include: lack of employment and income, cost of food, cost of energy, and housing. Language and cultural barriers, stigma attached to asking for food assistance, location of food, transportation, lack of clear labelling and easy to understand nutritional information are also some of the challenges faced by immigrants.

In the above-mentioned initiatives, very limited reference is made to the spiritual and cultural needs of immigrants and new Canadians. Therefore, this study has assessed existing food security initiatives in the Region of Waterloo, such as those described above according
to the characteristics of a sustainable food secure system as defined above. Potential policy interventions in the Region of Waterloo that would foster sustainable food security for immigrants would be recommended.
Chapter 3  Methodology

The criteria of sustainable food security for immigrants were developed from a review of literature in Chapter Two. This chapter looks at whether the criteria are supported by the findings of a case study. In this case study, I used interviews and participant observation to look at how community members, civil society organizations and regional government view sustainable food security. I have chosen the Regional Municipality of Waterloo as the case study site because it is similar to many mid-sized Canadian municipalities. Additionally, it also has some unique characteristics such as having a strong Mennonite culture and a balanced mix of rural and urban population, which will be discussed further in the chapter. Within this case study is an embedded case: that of the immigrant Muslim community from South Asia. The chapter explains the research design used in the study. It also explains the methods used for data collection and analysis including key informant interviews, participant observation and policy document analysis. Discussion on the potential contributions as well limitations of the study concludes the chapter.

3.1 Research Design

To answer the research question, a qualitative research design with an exploratory single case study is used. This methodological approach includes a literature review, and qualitative semi-structured interviews. Yin defines case study as “an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003)
Yin also suggests that a case study is a preferred strategy during which the researcher has little control over events, variables or the system of interest. He explains that the case study is the appropriate approach when researcher wants to asks the “how” and “why” questions about a contemporary set of events. Yin also notes that a case study inquiry “relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result” (Yin, 2003).

The above-mentioned description is relevant to my research. The study ‘relies on multiple sources of evidence’ including a literature review, key informant interviews, and participant observation. Case studies usually deal with situations in which there are many more variables than data points (Yin, 2003b). The complex interaction of communities with the economy and natural environment occurs in different ways with respect to the food system.

3.2 Case Study of Waterloo Region

Surrounded by a large area of fertile agricultural land, the Region of Waterloo is home to three farmer’s markets and initiatives pertaining to food system. Two post secondary institutions, the University of Waterloo and Wilfred Laurier University (City of Waterloo, 2009) in the region also offer academic and research involvement in food systems. Diverse population of students in these institutions also offer different food cultures. Similarly, The Waterloo Region Food System Roundtable is an initiative that discusses and advocates for a healthy food system, (Waterloo Region Food System Roundtable, 2009). Despite these distinctions, Waterloo’s resemblance with other municipalities will provide the opportunity to replicate findings of the study in other regions of the province and country.
Waterloo Region is growing with an expected population growth of more than 50% within the next 40 years. The demographic composition of the Region will change dramatically with this population growth, specifically the number of new immigrants will grow – this situation will result in more demand for food.

Within this case study is an embedded case, that of the immigrant Muslim community from South Asia. (Yin, 2003) describes this type of case study research as embedded case study design. This group was chosen because the author has direct knowledge and cultural understanding of the group. Moreover, it is a rapidly growing immigrant group within the Region of Waterloo as well as other mid-sized to large cities in Canada. In addition, the author can serve as a participant observer, and has access to members of the local Muslim community. Participant observation, as a research method, might be described as a data collection method in qualitative research, in which the researcher assumes a role and may actually participate in the events being studied in a case study (Yin, 2003). Yin (2003) argues that participant observation is a valid qualitative method and has been used more often in anthropological studies of different cultural and/or social groups. Since this involves the study of cultural groups, therefore, participant observation will be imperative for the study. As a researcher, I used this technique to immerse myself in the community being studied, and observe the real life settings and identify persons as key informants. This helped support the process of interviews and strengthen data collection through interviews. Observation recorded using both the methods of interviews and participant observation also increased the validity of data.
3.3 Muslim Community in the Region of Waterloo

Currently the population of Waterloo Region is 451,200 (Statistics Canada, 2007). In addition to being a mid-sized urban centre with a population of nearly half a million, the Region of Waterloo is within commuting distance to Toronto, which has a greater metropolitan population of 5 million. Dickson (2009) argues the Region’s proximity to a major metropolitan center, as well as its own high level of urban expansion means that urban forms of life persist even though it has a relatively small population. All the three cities of the region have downtowns and suburbs, wealthy and poor neighborhoods, rush hour traffic and culturally diverse communities. Waterloo Region is developing an increasing level of ethno-cultural diversity. According to (Statistics Canada, 2007) population of the people from South Asian origin in the region is 11,355. Nearly one in five people in the area are immigrants to Canada, and there are 9225 Muslims in Waterloo Region (Statistics Canada, 2007). Figures by the local mosque exceed the Statistics Canada figures, as the current Muslim population of Waterloo city alone is 11,000 according the (Waterloo Masjid, 2010). As the South Asian population is the highest in visible minorities, therefore, Muslim Community from South Asia is selected as an embedded case study in the region. According to the Cambridge Muslim Society (personal communication), the population of this community is 2700 in Cambridge. People with Indian and Pakistani origin live in this community.

The above-mentioned information gives a larger picture of the developments in Waterloo Region and that will be helpful in understanding in food-related efforts and challenges, in the current organizational structure of the Region.
3.4 Field Observations and Key Informant Interviews

In order to collect the required information, field observations and key informant interviews were conducted. Choosing the key informants was an important part of this study. Their selection was based on their expertise on sustainable food system and their interest in sustainable food security. Their affiliation with immigrant communities and organizations was also considered when choosing individuals as key informants. Participants included members of immigrant communities, immigrant service organizations, and regional government. Key informants from the regional government were chosen because of their involvement in food security and public health policymaking. Others have served as leaders of community organizations, employees of immigrant serving organizations, religious leaders, city planners, activists of sustainable food system and different government officials.

Participants of the study were selected because of their involvement, expertise in food system issues, relationship and service delivery to immigrant communities and relationship with the case study itself. They answered to a variety of open-ended questions about the food system and made valuable contribution to this research. Government officials and city planners contributed to the research by explaining the policy direction of the government about the food system. Immigrant-serving organizations are in regular contact with immigrants from various countries. Participants from these organizations contributed to the study by answering questions about their services being offered to immigrants and prospects for inclusion of food in their mandate. Community members and leaders contributed to the study by answering questions about their community food system and religious requirements of food.
The interviews contained three different types of questions, for three different groups’ informants. Informants were divided in three groups; 1) public health professionals, academia and researchers; 2) religious leaders, community representatives and farmers and 3) civil society organizations (See Appendix I). Unprompted replies and answers to follow-up questions by the informants also made a significant contribution to this study. Information about the informants is provided in the next chapter. The names of those who requested not to be disclosed do not appear on the list. However, their occupations are mentioned to represent their expertise and relation to local food system.

A total of 19 interviews were conducted, with each one lasting between 45-140 minutes. Each interview was to be 60-70 minutes long, but some informants were willing to explain their answers in a very detailed manner. On the other hand, short answers by some informants and time constraints rendered some interviews much shorter than the expected time.

Visits to city government offices, downtowns, and rural areas were part of the field observations. Since the researcher belongs to the community under investigation, therefore personal observation was more effective than that of a casual visitor and included researcher’s personal knowledge of the community and food system for four years. The questionnaire for key informants (Appendix I) was prepared based on the criteria developed in Chapter 2. The criteria was derived from Lima (2008) and then refined by adding the aspects of culture and religion in terms of food security. The following are the main elements of criteria developed, and questions are based on these criteria and objective of this study:
• Ensuring Availability and Access

• Ensuring and Promoting Social Integrity and Equity

• Protecting the Ecosystem

• Supportive / Enabling Environment

• Cultural Attitudes and Practices

• Religious Beliefs and Practices

Separate questionnaires were designed for each group of participants, and questions were based on the above-mentioned elements.
Chapter 4  Research Findings

This chapter presents the main findings of the study; the overall purpose of the study was to determine barriers and opportunities that exist to foster sustainable food security for immigrants.

4.1  Introduction

The following overview of Waterloo Region with its historical, geographical and immigration information helps gives a context for the area’s food system. Key informant interviews and field observations provide an understanding of an ideal sustainable food system for immigrants from South Asia.

4.2  Overview of Waterloo Region

Today Waterloo Region is one of the fastest growing regions of Ontario. The Region is accessible to national and US markets due to its connection with transportation network and geographical location. Agro-industry remains one the most important industries along with high tech industry in the area, especially in the production of meat, grain, and dairy foods (Harry Cummings Associates, 2007). This industrial growth is attracting immigrants from around the world and currently immigrants make up 22.3% of the total population of the region (Waterloo Region Food System Roundtable, 2009). This is a big picture of the food system and immigrants in Waterloo Region, which will help in setting a context for the study.
4.3 Key informant Interviews and Field Observations:

The research findings are based on interviews with members of South Asian Muslim community in Cambridge, key informants from government, non-governmental organizations, academia, food retailers, and farmers, and information from various food system websites. Key informants were chosen based on their expertise about the local food system or their experience with the subject of this thesis (e.g. they have direct knowledge of the immigrant community, farming, agriculture, and local food policy and research). As such, interviewees were divided in two groups of community representatives and experts in order to have different perspectives both from community and experts in food system. They contributed to the research by responding to a series of open-ended questions. The interviews were organized according to the questionnaire used for each group. Table 4.1 presents the number of key informants and type of interview according to the subdivided key informant categories.
Table 4-1: Overview of Key Informants

<table>
<thead>
<tr>
<th>Key Informant Category</th>
<th>Number of Key Informants</th>
<th>Type of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expert Group Contacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Agency/ Public institution</td>
<td>3</td>
<td>Face- to- face</td>
</tr>
<tr>
<td>Nongovernmental organization (NGO)</td>
<td>2</td>
<td>Face- to- face</td>
</tr>
<tr>
<td>Academia / Research/ Food System Activist</td>
<td>4</td>
<td>Face- to- face</td>
</tr>
<tr>
<td><strong>Community Representative Group Contacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community /members representatives</td>
<td>4</td>
<td>Face- to- face</td>
</tr>
<tr>
<td>Farmers</td>
<td>2</td>
<td>Face- to- face</td>
</tr>
<tr>
<td>Ethnic food retailer</td>
<td>2</td>
<td>Face- to- face</td>
</tr>
<tr>
<td>Religious /Community leaders</td>
<td>2</td>
<td>Face- to- face</td>
</tr>
<tr>
<td><strong>Total Key Informants</strong></td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

A total of 19 interviews were conducted in Waterloo Region; each interview was expected to be 60- 70 minutes long, but significant variation was noticed in the interview time and actual interviews ranged from 45-130 minutes in length.
Field observation include the researcher’s own understanding and daily life experiences as an immigrant from the case study community as well as a consumer of a modern food system. The researcher chose to use auto-ethnography to share his own understanding and life experiences in addition to valuable contributions by the key informants. “Auto-ethnographies are extremely personalized explanations that are based on the experience of the author/researcher to extend understanding of a sociological phenomenon” (Sparkes, 2000). The researcher enhanced his field observations with visits to farms and local rural areas, and through attending food system discussions and seminars in Waterloo Region.

4.4 Exploring the Food System of Waterloo Region

All key informants were asked questions pertaining to the criteria of sustainable food security of immigrants developed in Chapter 2. This section explores the food system of the region, based on the criteria. Those criteria include:

- Ensuring availability and Access:
- Ensuring and promoting Social Integrity and Equity
- Protecting the Environment/ecosystem
- Supportive / Enabling Environment
- Cultural Attitudes / Religious Beliefs and practices
4.4.1 Ensuring Availability and Access to Culturally Appropriate Food

Ten respondents, belonging to the South Asian Muslim community of Cambridge, Ontario, who arrived in Canada within the last five years, were interviewed about access and availability to culturally appropriate food in Waterloo Region. A vast majority of respondents indicated that it is difficult to secure culturally- and spiritually-appropriate food for their families. Seven out of ten respondents said that quantity of food is available, but it is neither fresh nor culturally-appropriate. They were of the view that while there are some culturally-appropriate foods available in the Region, finding fresh foods is still a challenge for most of them. As a community representative said:

No, we used to eat fresh produce at our home country but here it is very hard to find fresh food. To get fresh food you need to go to country side which makes it far expensive than what is available at the normal grocery stores, and income of the immigrants does not allow them to get that fresh expensive food. (CR 3, 2010).

Regarding access to food, six out of ten respondents said that a major portion of their income is spent on housing and utilities. Therefore, their income does not allow them to buy the foods of their choice; rather they choose foods that are less expensive. Similarly, all of the respondents expressed that food stores are not located at a walking distance. They need to travel five to six kilometres to get food. In some cases they need to travel to Toronto to get provisions according to their culture and choice. The majority of respondents were unaware of any programs except the Food Bank of Waterloo Region, which according to them does not provide culturally-appropriate food except halal meat on some occasions.
4.4.2 Ensuring and Promoting Social Integrity and Equity

Key informants from both the groups of community members and experts were asked questions about ensuring social integrity and equity in the food system. Responses from the group of community representatives were recorded first. Seven out of ten respondents said that none of the food is produced locally. Local foods are available at the farmers’ markets but they are very expensive. Three participants said that they can afford to buy from the farmers’ market and that quite a lot of their food was local. A majority of respondents, however, said that a very low percentage of the food they consume on daily basis is local. As a community representative stated:

\textit{Not even 5\%, less than 5\% of our food is local. (CR3, 2010)}

When asked about the importance of local food production, eight out of ten respondents from the community representatives group said that it was very important to produce food locally. According to them, local food production ensures the availability of fresh food, secures diversity of foods, and creates more jobs thus contributing to the local economy. Some respondents attached greater importance to local food production. Imported foods do not provide people much information about the ways of production, origin, and freshness of foods they consume on daily basis.

Regarding equal opportunities for farmers, 40\% of respondents from community representative groups stated that most of the local farmers earn low incomes and do not have fair access to the market system, when compared with industrialized farmers. In the industrialized food system big chain grocery stores import cheap foods and local farmers do not have an equal opportunity to sell their produce in local market. The majority of
respondents expressed the need for connecting farmers to consumers and the need to inform
local farmers about the demand for immigrants’ foods. Respondents also felt the need to
establish and run more farm stores and Saturday markets to establish relationship between
producers and consumers. As a local food retailer says,

There should be some way to connect farmers to consumers and populations, so that
they can see that there is a huge demand for growing bok choy and okra, which will
help both farmers and consumers. (CR1, 2010)

Similarly eight out of ten respondents replied that when buying food, they don’t have to look
at factors such as equal opportunities for farmers, because their income does not allow them
to do so. They simply pick the food that is relatively cheap. As a local community member
said,

I always keep in mind the low price. Price is number one priority for me and second
is quality. If the food is not rotten and price is low, it is OK, you can buy it (CR2,
2010)

It shows that price is considered a very important factor when buying food; eight out of ten
participants from community representative group said they look at the price of the food and
most of the times they don’t have much information about where their food is coming from.
Information about other aspects like food production and workers compensation is not handy.
Some participants expressed that once they have a decent income they will start considering
these factors. When the income allows, people will pay whatever they are asked to pay for.
As a community representative says,

I would probably pay, whatever is the cost, as food is a priority for me. (CR1, 2010)

All of the respondents from community representatives group expressed the view that in
order to improve the food system, it would be necessary to combat the huge industrial food
system. They expressed the view that the intention of the capitalist market is to make profits; in the case of large agro-industrial operations, profits have to be huge to sustain those operations. To counter this, therefore, it is very necessary to add the elements of welfare and social justice to the food system, which the modern industrialized food system fails to address. As a community representative says,

*If you want to improve our food system, you have to somehow break this big stores trend. They store potatoes and they don’t allow them to go out for sale, unless they get the price they want, so that they can make big profits. If God has given you abundantly, you need to sell it to the people and not wait for higher prices. (CRI, 2010)*

4.4.3 Protecting the Environment

All of the respondents from the community representative group agreed that their food choices are affecting the environment in some ways, since most of their foods come from far-flung areas and even from other countries. Respondents also said that Canadian and regional climatic limitations leave people with no choices other than importing food from other parts of the world, as their growing season is very short. Moreover, the global economic system and international trade agreements allow countries to import and export certain products including food.

Respondents were also asked about the importance of protecting the environment for future generations. All of the respondents said that it is very important to protect the environment; they stressed protecting the environment, not only for future generations but also for current generations.
Nine out of ten respondents said that it is very important to buy locally-grown food because it helps the local economy and protects the environment. The practice will also encourage local farmers to grow and keep their farms nourishing and surviving. In order to make available the foods of their choice in Waterloo Region, eight out of ten respondents said that foods should be grown in the region ensuring access to fresh food. Farmers and immigrant communities need to be connected to farmers find out the possibilities of growing international foods locally.

4.4.4 Supportive Structures Public/Private

Participants from the community representative group were interviewed about the public and private supportive structures that might be in place that would address the issue of food insecurity. They were also asked about challenges in obtaining healthy and safe food of their choice in the Region; eight out of ten respondents said that it is a challenge to find fresh food of their choice. They said that big stores keep the food refrigerated and ethnic grocery stores import food from India and Pakistan, so it’s not fresh in any way. They noted a clear difference of taste between refrigerated and fresh foods. Respondents also disliked canned foods, which they have to buy sometimes because they have no other choices. Similarly, finding halal meat is also a big challenge (see discussion below). It is not available in main grocery stores and in small grocery stores its prices are higher than meat available in main stores.

Similarly, seven out of ten respondents said that there are some foods that are available in the farmers market; a commendable effort from the regional government. But
there are many places in the region where it is difficult to access a grocery store. As a local community leader says,

*The region needs to have more small independent grocery stores in various neighbourhoods, rather than huge chain grocery stores that you need to drive to.* (CR4, 2010)

In terms of the regional food-related policies, seven out of ten respondents said that there are some laws that prevent people from consuming food according to their cultural and religious preferences. They said that the regional laws do not support Muslims in terms of getting their food according to their religious requirements.

### 4.4.5 Cultural Attitudes/Religious Beliefs and Practices:

Food is an important part of religious observance and spiritual ritual for many faiths including Christianity, Judaism, and Islam. Food plays an important role in cultural practices and religious beliefs. This role is complex and varies among individuals and communities. Participants from the community representative group were asked questions about their ability to properly observe their religious and cultural traditions through the use or consumption of food. Eight out of ten respondents said that it is difficult to secure food according to their religious beliefs. For example, halal meat and chicken are available at small ethnic stores that are not conveniently located. Price was also viewed as an important factor as prices of halal meat are greater than the prices of regular meat available at supermarkets. As a religious leader says,

*Religiously appropriate food is available but not freely as it should be. For example halal meat is not available at the main stores. Again the prices of halal meats are high, as compared to non-halal meat. For*
example chicken in halal stores is 20-25% more expensive than chicken available at main stores. (CR2, 2010)

Similarly local and regional by-laws do not support Muslims in some of their religious practices. As the same religious scholar mentions

*Regional by-laws are not supporting Muslims to get their foods. On Eid-ul-Dha day Muslims need to slaughter animal (Sacrifice)*\(^1\). *I would love to do it myself, [as is the custom] but the law does not give me the permission. It is only acceptable if you send a Muslim for qubani (slaughter of animal). Quran says to the effect that “slaughter by the people with the divine scriptures (e.g. Jews and Christians) is halal (permissible)”. But one doesn’t know the religion of a person who slaughters the animal, and the second question is whether he is practicing his religion or not. Therefore it becomes doubtful, and the slaughter will not be acceptable. (CR5, 2010)

It is therefore very hard to secure spiritually-appropriate food in Waterloo Region for people who follow Muslim religious traditions.

### 4.5 Expert Perspective

A second group of interviewees included experts: members of academia, researchers, officials from department of public health and non-governmental organizations. These individuals were interviewed and their responses lead to some very interesting findings.

Findings are discussed according to each criterion. Those criteria are:

- Ensuring availability and Access:
- Ensuring and promoting Social Integrity and Equity
- Protecting the Environment/ecosystem

\(^1\) Sacrifice, as practiced by Holy Prophet Muhammad (Pbuh) is an essential religious rite of Muslims in memory of the sacrifice performed by Prophet Abraham.
• Supportive / Enabling Environment

• Cultural Attitudes / Religious Beliefs and Practices

4.5.1 Ensuring availability and Access to Culturally Appropriate Food

Nine respondents from the expert group were interviewed about the same criteria. Seven out of nine respondents said that the quantity of food is available, but that not all food is healthy and there are problems of access to food. As a public health official from the Region of Waterloo Public Health department expressed,

*Food definitely is available, but what percentage of food that is healthy, nourishing culturally appropriate, accessible, that may not be available. But there is a lot of food for sure.* (ET1, 2010)

Seven out of nine respondents said that there is no access to culturally-appropriate food. The majority of respondents said that some immigrants do not have economic access to food while physical access is also a challenge for others. Talking of the physical access, a professor at Wilfred Laurier University stated

*No, using this university as an example, I don’t think that we serve a wide enough range of foods to meet people’s religious and cultural needs at all. I think that is one of the shortcomings of the food system right now, as we have not given that very much thought. But it is on the radar screen for some people in the province.* (ET2, 2010)

Most of the respondents agreed that there is not sufficient policy work done to improve access of immigrants to food. Immigrants, particularly those who arrived in Canada in the last five years, have notably less income and therefore access to healthy food is a challenge for them. As such, acquiring appropriate food is a challenge as well. Like other factors of
adjusting to Canada, food is a big issue for immigrants. As a public health official from the
Region of Waterloo says,

_I know from looking at some data from the health of immigrants report that
immigrants, particularly those that have come in the last five years, are typically on a
very low end of the income spectrum. So I think that economic access to healthy food
can be challenging. Physical access depends on where they live. You can get access if
you have a car, but new immigrants don’t have car when they arrive. So physical
access is also a challenge, depending on where they live._

Now culturally and religiously, I know someone who needs halal meat and she still
travels to Mississauga to get that. I think there are locations at Kitchener and
Waterloo but she is just learning about those. (ET3, 2010)

Seven out of nine respondents in the expert group said that there are quite a few initiatives
like the Food Bank of Waterloo Region that sometimes cater halal meats to Muslims. The
Community Nutrition Workers program and Neighborhood Produce markets aimed at
improving access for people of different neighborhoods. One of the respondents said that the
Region is taking a start in this direction and it’s a new thing here, but there is more interest
now at the Regional level. The Kitchener-Waterloo Multicultural Centre is linking with Farm
Start (a program aimed at inclusion of immigrants into the farming system), and there is more
public and policy effort going into it. But not all programs address the needs of immigrant
populations. For example, the Neighborhood Produce markets, a pilot project designed in
2007 to strengthen the local food system and aimed at improving access of citizens to fresh
foods, was not successful in terms of immigrant population inclusion. The project was unable
to reach a majority of residents in Waterloo Region. There was no community consultation before their implementation to improve access of immigrants or low-income populations to fresh foods. As a Public Health Official said,

> With our Neighbourhood market we learned that our methodology was flawed. It was a problem, of not engaging that population from the beginning. So no, it was not successful. (ET3, 2010)

In response to a question about the existence of initiatives to address food insecurity, seven out of nine respondents from the expert group mentioned a few initiatives such as the Food Bank of Waterloo Region a community based organization, which distributes food through donations and partnerships. The Food Bank sometimes offers halal meats to Muslims. Similarly, the Community Nutrition Workers program aimed at training community members in healthy nutrition while the Neighborhood Produce markets were an attempt to improve access to food for people from different neighborhoods. One of the respondents said that the Region is beginning to move in this direction and it is a new initiative in the area. There is more interest at the Regional-level than was the case in the past. All of these programs were reported by research participants as not being capable of addressing the needs of immigrant populations. For example, the Neighborhood Produce Markets were not successful in terms of engaging populations, especially immigrants from the beginning.

### 4.5.2 Ensuring and Promoting Social Integrity and Equity

With respect to the question of equity, all of the respondents said that there are equity issues for local farmers, consumers, and retailers in our current food system. According to them,
local farmers do not have access to equal market opportunities, as a Public Health Department official says,

As per access to market goes, from a farmer’s perspective there is not fairly an equal competition at all. Most of the areas where they can sell are limited to Farmer’s markets etc. Large chain food stores don’t really open up for these kinds of small farmers. From a consumer point of view if you have the means you can buy locally grown fresh produce or if you can’t afford, you bank on food banks and processed cheap food, so it is definitely not equitable. (ET1, 2010)

Seven out of nine respondents stated that there are many issues that we need to resolve to improve equity. Some issues relate to income while others relate to infrastructure to improve access to local food and provide a level playing field for farmers and consumers. Some of the respondents said that the Region is already making policies to improve equity but there are opportunities to do more. Additionally, there are barriers from provincial and federal governments. As a Public Health Official says,

On the regional level, few things have already been done. ROP [Regional Official Plan] has at least to some extent secured future expansion into agriculture land, so at least the lands would be there to grow. And we are also looking at the area municipalities to change zoning and licensing bye-laws to allow small farmers to sell their food in neighbourhoods that don’t have food access. So regionally there is not too much we can do because you are looking at imported food. You are looking at larger issues that make food cheap as it is, and even looking at regional dollar….Ultimately it’s the living wage or income which can change….. Very few regions have invested in the area of food. The Region has helped establish Foodlink of Waterloo Region. A lot of research is done by the by the Public Health department. Waterloo, that way, has started a number of things that are now being replicated in other regions. There is lot more that we can still do but it takes money and it takes time. (ET4, 2010)
Some respondents wanted the government to resolve issues related to income in order to address food insecurity. As a professor at the University of Waterloo and food system activist says,

\begin{quote}
I think some of it has to be addressed through income security, and first, so that people would have the means to buy food. Too often people talk about food issues but they don’t think of political analysis, or economic analysis. Coming from a bilingual household, and aware of the language issues, I grew up immersed with greater sensitivity to language issues and I think that generally the education system needs to put formal resources into English language training for immigrants and that means for adults, (children usually manage very well). We can replicate the experiment of Turkey by teaching English through telephone.

I think also we need a very strong program to recognize foreign earned professional skills and to find any gaps there might be, and some of the gaps might be regulations and familiarity with customs. (ET5, 2010)
\end{quote}

The professor also added that, “The minimum wage needs to be raised. In terms of buying power the minimum wage now provides less than it did, 15 years ago”.

Some respondents said that local food system discussion needs to be inclusive, as a food system activist says,

\begin{quote}
For me the food system discussions that happen in the region, they do not include everybody. There are a lot of people, who are missing from the table, when these discussions happen. I think that the local food movement/ alternative food movement is elitist in a way, like majority is middle to upper class white educated people. I think that it’s not a very diverse discussion.

And I think that one thing that does not get talked about in sustainability discussion is social justice. So we don’t talk about agriculture migrant workers that might be supplying food to the region. And I don’t know why that is. How and where the discussion can occur.

Grass roots action is really important. Creating food policy is really important. You need local food policy; you need provincial and national food policy. Food is really important and it is at the centre of a lot of social movements. There are a lot of things individuals or a community can do around food and you can sort of start the action at
\end{quote}
By improving language skills immigrants will have better access to jobs, thereby improving access to food by having decent income. Another respondent said that,

*I think that many of the common strategies to localise and make sustainable food system; have not been working for people with low incomes. So I think that when there is lots of emphasis on local organic food, usually it comes at a price premium, which automatically, excludes people with less income. But there are other programs that attempt to equal out those access problems. So there are CSA [community-shared agriculture] programs that would allow sponsoring memberships for other members who wouldn’t be able to afford it. There are CSAs that can be worked for instead of purchase. So it depends, some are striving to create that social equity. As a society we need to enable people to earn income so that they can buy the food that’s local and healthy. (ET3, 2010)*

This can be translated into the problems of Waterloo Region residents especially immigrants who have less income and therefore cannot have access to healthy and organic foods. It means that they are excluded from the organic food movement. Another respondent insisted on the importance of the local food movement and noted,

*The retail system has changed. If you were in this country 30-40 years ago, farmers did sell their produce directly to the stores, and they sold a whole variety. There were orchards here that had hundreds of different kinds of apples. But slowly, but surely, the big retail took over more and more and more, and big companies bought up the little companies and then other big companies bought up those. So now we have only three major retailers in Canada, whereas 30 or 40 years ago we might have dozens and dozens of different small retailers. So the system has changed over the last few decades. These companies are very greedy and they are extremely powerful. One way of getting back at that is to do exactly what is happening right now and start a more local food movement like CSA, and the Elmira produce auction, and local farm stores. There are 12 farm stores in our region. What is interesting for new immigrants, too, is maybe now they are paying more money to get some of the foods that they are familiar with at some of the stores like Middle Eastern stores. They*
might be able to make a direct link with the farmer, and ask the farmer to grow the
food that they want. The farmer will say sure I will grow if you buy it. (ET7, 2010)

Two out of nine respondents said that immigrant settlement organizations should ask
immigrants to maintain their traditional food practices. Most of the respondents agreed that
when immigrants and new-comers come to Canada they are healthier than Canadians. This is
because of the generally unhealthy food habits of Canadians in a North American food
culture that offers fast and processed unhealthy foods (Lima, 2008).

So, funding to include food in settlement programs needs to be increased. Some
participants said that access to community gardens provide employment opportunities for
immigrants by living out of selling their own ethnic food and allowing others to have a taste
of that food.

As a local food activist said,

People can sell hot dogs and ice cream on the street, which is really unhealthy food,
but why can’t people sell healthy food that is made so tasty and spicy and delicious.
We should be able to sell that and then more people could make a living and then we
could all eat healthier food on the street. We need to change the policy for that. That
is one of the things that I am really interested to change. (ET7, 2010)

Another food system expert puts it in a different way,

Encouraging people to set up food outlets specific to community needs would be a
good step to outlets. By going smaller as opposed to big, to have more community
based food outlets. Similarly food streets or street foods should be encouraged, and
one of the big barriers to that are public health regulations. (ET7, 2010)

And this translates into the inefficiency of public health regulations that are protecting the
interests of big corporations instead of small family owned food businesses. Similarly
planners should incorporate the food needs of the community and allow spaces for different
small food outlets in the planning process. Public health regulations, therefore, should allow small food businesses while protecting the taste and health of the community at the same time.

4.5.3 Protecting the Environment

Eight out of nine participants said that food banks mostly rely on food donations and donations are usually accepted irrespective of environmental concerns. Therefore, it is not their mandate to protect the environment.

Six out of nine participants said that in order to resolve the issue of food insecurity, first we need to resolve the issue of poverty and income, as a food system expert concurs:

First we need to address the poverty issue and give people the ability to buy food. Then a fair price for farmers that allows farmers to farm in a way that is sustainable. So by making all these connections we can address this issue of food insecurity”. The way the food system is set up right now does not allow it to do properly. (ET5, 2010)

4.5.4 Supportive Structures Public/Private

Most of the participants agreed that currently, there is a lot more effort on the Regional level to address food insecurity than in the past. In particular, the Public Health Department is trying everything they can to promote food security. They mentioned farmers markets, neighborhood produce markets, and community nutrition workers program. But there is more influence for departments at provincial and federal levels as immigration is a federal subject. As a public health official says,

Immigration is more a federal and provincial subject rather local. Quotas and how many immigrants are let in is again federal mandate. But at local level we know where there is a larger concentration of immigrants, so on that front the region could work on how do you get community partners, how do you get neighbourhood groups
to include food, to increase funding to outreach workers, to provide food vouchers. But there is lot more control of provincial government. (ET1, 2010)

Most of the respondents mentioned a few opportunities like convincing the regional government and regional council by doing more research and showcasing current research to regional council and food system roundtable. As a public health official explains,

I think one of the big things that is missing is how can we integrate immigrants in the whole agricultural economy, food producing skills and on the other hand meeting the demand that is arising from immigrant communities in terms of food. Existing farmers are all in their sixties, so there needs to be a huge relocate, how do we integrate people with food growing skills in the business of food growing. So it requires that whole shift. This needs a fresh look, but on larger scale than Farmstart. I know it needs a federal and provincial role. It should be started at the time when new immigrants are screened to come into Canada. Why do you want people with a strong big agriculture background to come here, because there is really no direct path for them to get into the agriculture? STOP IT! Right? Why do you want doctors and dentists to come here...you know...and they are going to drive taxis here? Yeah STOP THAT, if you don’t need them.... you don’t want them to go through hell... so don’t allow them in. If all you can give is construction jobs.... or labour jobs bring those people...right? So that same strategy needs to be used in food.... Yeah..... Unless you do that systemically...........like this is going to be an ongoing thing, we can do as much as you want. But it requires a huge shift. (ET1, 2010)

Another respondent sees Farmstart program as a big opportunity.

Farm Start is a really big opportunity. For immigrants, whose background is farming, entering into farming would be difficult for them because of the price of land, therefore I see Farmstart as a big opportunity, because having mentoring and having access to land is very promising. (ET6, 2010)

4.5.5 Cultural Attitudes/ Religious Beliefs and Practices:

Culture and religious beliefs are important factors along with price and accessibility when making food choices. Key informants from the expert group were interviewed about the criteria of availability consumption of food according to religious beliefs. The majority of
respondents agreed that the food environment of Waterloo Region is really influenced by the dominant food culture of North America, which values cheap, quick, convenient, and tasty meal. Therefore, there is very less accommodation for people of other religions and culture to observe their food choices, although it is improving slowly.

4.6 Summary of Findings

The criteria of sustainable food security for immigrants were discussed in this Chapter. Findings obtained reveal that in most cases the current food system of Waterloo Region is largely industrial and contains major gaps in fulfilling the criteria of access, sustainability, social justice, and cultural and spiritual attitudes. The food system only partially meets or even fails to meet the criteria. Table 4.2 presents a summary of findings, where findings from both the groups of community representatives and experts are listed against each criterion.
Table 4-2: Summary of Findings

<table>
<thead>
<tr>
<th>Criteria of Sustainable Food Security for Immigrants</th>
<th>Community</th>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criterion 1:</strong> Ensuring availability and access to culturally appropriate food</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td><strong>Criterion 2:</strong> Ensuring and promoting Social integrity and equity</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td><strong>Criterion 3:</strong> Protecting the environment</td>
<td>✗</td>
<td>P</td>
</tr>
<tr>
<td><strong>Criterion 4:</strong> Supportive Structures Public/Private</td>
<td>✗</td>
<td>P</td>
</tr>
<tr>
<td><strong>Criterion 5:</strong> Cultural attitudes/ Religious beliefs</td>
<td>✗</td>
<td>P</td>
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</tbody>
</table>

Note:

✔️ = Meets the criteria
✗ = Fails to meet the criteria
P = Partially meets the criteria
Chapter 5  Policy Considerations

5.1  Overview

This thesis began with a discussion of the importance of food security in general and specifically for new Canadians. The researcher took a systems approach by looking at sustainable food security from a systems perspective which involves a variety of social, economic, cultural and environmental factors. The analysis included a literature review and case study.

From the analysis, the thesis questions were answered, while the literature review uncovered definitions and developed criteria of sustainable food security. The purpose of Chapter 5 is to make recommendations on the basis of the case study findings. First the current initiatives to address food insecurity in Waterloo Region and the extent to which such initiatives have included immigrant populations are discussed.

The next section explores institutional and policy considerations for strengthening sustainable food security for South-Asian immigrants and new Canadians. This section is followed by an analysis of barriers to implementing policy considerations. The final section gives some suggestions to overcome these barriers followed by a conclusion of the Chapter.

5.2  Sustainable Food Security in Region of Waterloo

Food insecurity exists in households with higher-income levels, but it is higher in households with lower-income levels (below $ 30,000), which comprises 25.3% of the households in the Waterloo Region (RRFSS 2005). People living in low-income households are far more likely to

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2 RRFSS Rapid Risk Factor Surveillance System is an ongoing telephonic survey used to gather surveillance data, monitor public opinion on key public health issues in Ontario.
experience food insecurity. In this context of rising energy and food prices, those who are living on a tight budget will likely be more vulnerable to food insecurity.

The nutritious food basket is a tool used to measure the cost of healthy eating on the basis of nutrition recommendations. The food basket contains sixty-six food items from Canada’s Food Guide to Healthy Eating (1992). The food basket is commonly used by Public Health organizations across Ontario, since 1998. A substantial 16.9% increase in the cost of the nutritious food basket has been observed in a 2008 survey; this means more vulnerability of low-income households to food insecurity.

Beringham (2008) lists the following policies and governance systems that exist in Waterloo Region to address the issue of food insecurity.

5.2.1 Food Banks

Food banks act as an emergency response and provide temporary relief food for people who do not have enough to eat. But they have certain limitations in terms of types and amount of food. Some families do not receive the amount of food required to feed their family members. As food banks mostly rely on corporate donations, they tend to have limited access to fresh foods such as fruits, vegetables, and milk. In Waterloo Region, approximately 25000 people use the food bank each year, of which 55% are adults while 45% are children ((Food Bank of Waterloo Region, 2009). Research shows that only a fraction of the population in Waterloo Region receives emergency food while the issue of food insecurity in our communities still exists to a much larger extent (Tarasuk & Eakin, 2003).
5.2.2 Food-based Community Programs

The Region of Waterloo funds certain community-based food security programs like the Waterloo Region Community Nutrition Worker program and Waterloo Region Community Gardening Council. The Community Nutrition Workers program is aimed at improving the food production and preparation skills of the community. Community Nutrition Workers (CNWs) are peers who share knowledge and skills related to growing, obtaining, preparing and storing nutritious foods. In 2004, there were 18 CNWs working in neighborhoods across the Region (Michelanko, 2010). The Community Gardening Council is an umbrella group of volunteers that promotes and sustains community gardens to improve residents’ access to fresh food throughout Waterloo Region. It tries to achieve its objectives through public promotion and communication, building partnerships with other stakeholders, research, education, and advocacy. They are also working towards accessible gardening to make the Region’s community gardens physically-accessible and ethno-culturally inclusive. Currently, there are 40 community gardens in the Region with 750 participants (Michelanko, 2010). The council is also working towards supportive municipal policies that will help sustain community gardens for the long term.

5.2.3 Support to Food Policy and Research Initiatives

The regional government also supports and participates in the Waterloo Region Food System Roundtable, a networking policy-making group working on building a strong voice for a healthy food system in Waterloo Region (Waterloo Region Food System Roundtable, 2009). The group includes representatives from key sectors and interest in local food system. It also hosts a website on food system discussion and updates. Officially, the Region of Waterloo dedicates some staff
time to liaise its activities. In 2009, it co-hosted the Waterloo Region Food Summit, which resulted in a declaration for improving food access and food security in Waterloo Region. On the other hand, the Region is also supporting Waterloo Region Shares which is a network of emergency food distributors, called a Food Assistance Network that works towards improving coordination, efficiency and effectiveness of the local food assistance system (Waterloo Region Shares, 2010).

5.2.4 Research and Pilot Projects

Together with the above-mentioned programs, the Region of Waterloo conducts and supports research on food system issues. The Department of Public Health has carried out valuable research and written several reports on food system issues in the Region, from availability and access to food, to localization of food system. For example, the neighborhood market pilot project in 2007 was designed to strengthen the local food system in the Region. The objectives of the project were to increase consumption of fresh produce, to increase access to fresh local produce in neighborhoods that have limited food access and to increase social connections and support local farmers (Miedema, 2008).

5.2.5 Foodlink Waterloo Region

Foodlink Waterloo Region is a non-profit organization that promotes local food, supports and connects farms and food businesses, provides local food education and outreach in our community, and engages decision makers in putting local food policy on the community’s agenda (Foodlink Waterloo Region, 2010)
Foodlink’s Buy Local Buy Fresh is an annual campaign that locates fresh local food in the region. They have developed a Buy Local Buy Fresh map, which has been published each year since 2002; the map contains information about local foods, farmers, processors, and where one can buy fresh local food in Waterloo Region.

The above-mentioned policies and governance initiatives still offer some challenges for immigrants to address their food insecurity issue in a sustainable manner, as revealed by the results of this case study. This research shows that there are some significant areas that would benefit from improvement.

5.3 Strengthening Sustainable Food Security for South-Asian Immigrants and New Canadians: Institutional and Policy Considerations

There are a number of steps that have to be taken in both the government and the policy process to foster a more sustainable food system for immigrants, while also addressing their cultural and spiritual needs. Region of Waterloo should take the following steps to foster sustainable food security for immigrants.

5.3.1 Inclusiveness of Policies

The Regional Government of Waterloo should ensure that the concerns of new residents are adequately represented in governing institutions; there is a need for more multi-cultural representation on advisory councils, in government and in city departments. The City of Guelph is trying to include new Canadians in decision-making processes and provides them employment and language support in their settlement, (City of Guelph, 2010). The City of Toronto has the
most representation of immigrants in government. There is negligible representation of new Canadians in the government in the Region of Waterloo. For instance, there is no representation of new Canadians and specially South Asian immigrants on advisory committees of Waterloo Region. This situation requires concerted efforts by governments in the Region to diversify representation. Once they are represented, immigrants can change the decision-making process about their food settlement, housing, and other needs.

5.3.2 Outreach

Similarly, the governments in the Region should also ensure that they are making some effort to reach out to new Canadians and immigrants. For example, in order to support new Canadians, Peel Region has formed a Peel Newcomers Strategy Group with members from immigrant communities, not-for-profit organizations in the area and Region of Peel, and other government organizations (Peel Newcomer Strategy Group, 2010). The governments in the Region of Waterloo could learn from these examples by encouraging the participation of immigrants and new Canadians on local municipal advisory committees, local council, school boards and other public institutions and make their policies more inclusive and diverse. More specifically with respect to food security, programs should recognize the need for diverse regulations and policies to ensure that spiritual and cultural traditions are respected and encouraged. In food security initiatives (discussed in previous section) in Waterloo Region, these programs can benefit from inclusion of immigrants. For instance, in designing the Neighbourhood Market pilot project, initial consultation with different multi cultural populations including immigrants could have yielded very productive results in providing culturally appropriate foods to new Canadians.
Similarly representation of immigrants on the board of directors of the Foodbank of Waterloo Region can also change the direction of the organization forward more multicultural concerns. Another way to diversify our food system is to include new Canadians in the discussions about food systems that occur in the Region; this could result a culturally-appropriate and diverse food system. The inclusion of religious beliefs and practices in the concerns of the regional food system will be another indicator of inclusiveness. For example, the Waterloo Region Food System Roundtable currently has minimum representation of new Canadians, which needs to be increased. By increased representation in the Roundtable, cultural and spiritual needs of certain faith groups can be addressed. Immigrants should be invited to become members of the Roundtable which is not happening right now.

5.3.3 Public Education

Outside of formal programs, the Region of Waterloo can strengthen civil society and governance in this area by reaching out to communities and strengthening volunteer associations and bridging cultural differences. This study recommends public education on the value of diversity including different food traditions. When funding the immigrant settlement organizations, food and food education should be considered as an important factor in settlement of new Canadians in the Region. For example the YMCA of Cambridge has a Cultural Diversity Program but culturally-appropriate food is not part of the program. Moreover, out of 18 members of the members of the Diversity Advisory Committee, only 2 are South-Asians. Majority of the members belong to dominant English culture (Cichello, 2008). It implies that new Canadians are
underrepresented in civil society decision-making in the Region. This representation needs to be increased in order to address the needs of new Canadians.

### 5.3.4 Inclusiveness of Advisory Committees

Work on changing policies and plans begin with the Community Plan and by-laws. Currently there is limited representation of new Canadians on advisory committees in Cambridge and other cities of the Region. These advisory committees need to include immigrants/new Canadians to reveal cultural diversity. This will reflect the accommodations of immigrant’s needs in Regional Official Plan of the region and by-laws of the cities of the Region.

### 5.3.5 Steps in Planning

Specifically, zoning by-laws need to include street foods to be sold in the Region. This will introduce international foods and food traditions and help improve our food system. Similarly, slaughtering animals on Eid celebration is a requirement for Muslim community.

Slaughterhouses are licensed by Ontario Ministry of Food and Agricultural Affairs and govern under their regulations. However, regional municipalities inspect licensed abattoirs to ensure food safety. In order for meat to be halal (permissible for consumption under Islamic law), the slaughter of the animal from which the meat is taken must be conducted in a specific manner that involves:

- The name of Allah or the phrase “Bismallah” (in the name of Allah) being recited before the animal is slaughtered;
- The person conducting the slaughter must be a Muslim;
- The animals being slaughtered with compassion and mercy; and
- The instrument of slaughter (knife/blade) being sharp.
As the results from this case study of South Asians reveals, Muslims cannot practice this ritual on Eid and their animal has to be slaughtered by a trained butcher. Regulations regarding slaughter are the main hindrance in performing the ritual of slaughter.

Similarly zoning by-laws do not allow selling food in certain areas, which result in limited access for Muslims to fresh fruits and vegetables. As this study reveals, some of the immigrants from South Asia need to travel to Toronto to get the foods of their choice. This makes food shopping an expedition, which consumes a lot of time. Mainstream stores also do not sell halal meat, and prices of meat in halal stores are high as compared to regular meat. Therefore amendments to these by-laws are needed in order to respect spiritual and religious traditions of Muslims.

In terms of access to fresh food like fresh fruits and vegetables, zoning by-laws in the City of Cambridge do not allow selling food in residential locations. Consequently, residents and especially the South Asian community, have to rely on mainstream grocery stores where fresh food is rare. As a representative from Council of Agencies Serving South Asians says,

*It’s not a daily trip to the market to pick out the fresh foods you want, but rather jamming bag loads of calorie-rich, nutrient-poor foods into the back of the station wagon every two weeks and going home,”* (Daily Globe and Mail, 2010).

Therefore, in light of the results of this case study, land use and zoning by-laws should allow selling fresh foods in residential locations throughout the Region. This will allow new Canadians to access fresh food, to which they were accustomed in their home countries.
Another recommendation is to make a by-law allowing small-scale chicken raising in the Region of Waterloo. Currently, other cities in Canada, like Victoria, BC, London, ON, and Niagara Falls, ON are some examples where small-scale chicken raising in one’s backyard is encouraged. This will not only provide an affordable way of feeding families, but will also provide organic fertilizer for gardens. This practice also avoids energy usage and carbon emissions typically associated with transporting food. Most of the South Asian new Canadians were used to this in their countries of origin. It will allow the transfer of chicken raising skills to new generation and contribute to food security along the way. If adopted, the above-mentioned recommendations of this research will play an important role in fostering sustainable food security for immigrants.

5.4 Barriers to implementing these recommendations:

While implementing the above-mentioned recommendations, within the Regional Municipality of Waterloo there are some challenges. In the case of slaughterhouses and slaughtering animals, provincial regulations are the main barrier. As abattoirs are regulated by the Ontario Ministry of Agriculture, Food and Rural Affairs, the Region has no control over them except public health inspections.

5.4.1 Public Concerns

Raising chickens in backyards raises public concerns about health and animals in the neighborhoods. But several public health officials argue that homegrown poultry are not a disease threat if the chickens are properly maintained. Public education through advertisements about the industrial life style has changed the way people think about food and nature. In a move to oppose the chicken raising in residential areas a citizen expressed in a local newspaper,
I was appalled to learn city council is considering allowing a new bylaw to permit backyard chickens in residential areas. This is a terrible idea for reasons so numerous that I'm unable to state them all (Smith, 2010).

Lot size, smell, noise, attraction of rodents, and waste disposal costs were some of the public concerns raised about raising chickens in residential areas.

5.4.2 Lack of Understanding

Lack of understanding among different and diverse cultures is another barrier. People of different ethnic backgrounds possess different attitudes, values, and norms that reflect their cultural heritages. In today’s Canadian multicultural society there is little understanding of other cultures and traditions. In industrial and developed societies, technology has significantly decreased the regular interaction between neighbors. Neighbors are considered a good source of support and information, a decreased interaction of neighbors results in weakening this support and leads to unfamiliarity of cultural and traditions. Therefore a collective change in the decision-making process seems impossible. For instance, planners do not take into account South Asian Muslims practicing their spiritual beliefs such as daily prayers. This results in a loss of respect and traditions for other cultures. Decisions are then made for the dominant majority ignoring minority groups, because the majority has distinct set of political ideologies as well as a distinct set of political interests. That excludes a significant portion of the population. This issue goes beyond food right to the way in which public spaces are allocated.
5.5 Suggestions for Overcoming Those Barriers:

5.5.1 Representation of Immigrants

Western democracies tend to have minimal representation of multicultural populations and immigrants. Immigrants are an asset and are tremendous resource to the community. This study, therefore, suggests the inclusion and representation of immigrants in policy-making processes and institutions. For example, advisory committees on the municipal level should become more diverse so as to integrate immigrants and address their issues in an interactive manner. Whether it is a matter of food or education, it is critical to incorporate the needs of all segments of society in order for a society to thrive and succeed.

5.5.2 Broader Multicultural Policy

Another recommendation would be a better local multicultural policy for immigrants. Canada has adapted a multicultural policy for its citizens but that still needs implementation at local levels. With globalization and the ever-increasing movement of people from one country to another, the challenge of appreciating and accommodating cultural differences has become a universal experience. A multicultural policy that is sensitive to the needs of both long-time residents and the newly arrived will probably meet with the greatest success. Canada's future depends on the commitments of all its citizens to a unified Canadian identity, while still taking pride in the uniqueness of their individual heritage. In the case of food, for example, all the food system discussions that happen in the Region of Waterloo should include multicultural representatives.
5.5.3 Communication

This study suggests that a continued and effective communication take place between the government and public, especially between the government and various ethnic or multicultural populations. The Region of Waterloo government can benefit by learning from the City of Guelph in its diversity and inclusiveness of policies (City of Guelph, 2010). This will increase a dialogue between different communities, governments, and other stakeholders and will result in inclusive policies relating to our food system and other issues.

5.5.4 Public Education

In order to overcome cultural barriers and educate the public, the regional government can benefit from having a public education campaign about our food system, the value of composting, local food sustainability, etc. This will pave the way for change to happen and public concerns about composting, gardening, raising chickens in residential properties can be addressed. Otherwise, the public is constantly educated about the fast industrial food system on the streets, flyers, and media on a daily basis, resulting in more consumption of industrial food and an unhealthy lifestyle.

5.5.5 Community Contribution

While waiting for the government to make things happen, we often do not realize the potential of community. There exist great human and economic resources that can be mobilized to make a difference. Therefore, it is very important that the community itself uses its potential to foster their food security and well being. For example communication between the government and community can be initiated by the community itself. Similarly finding the proper information and taking part in community gardens and meeting local farmers are all examples that can be done without government intervention.
5.6 Conclusion

The term multiculturalism is used to describe the reality of a Canadian population of diverse origins. By this meaning, multiculturalism refers to a social ideal, a value that regards the growing Canadian pluralism as not only a positive aspect of society worth preserving but also one that reflects positively on the Canadian way of life. Accordingly, a multicultural Canada is accepted as a country in which the norms of civic behavior and the modes of social interaction are respectful of ethno-cultural pluralism. In this way, the idea of multiculturalism carries with it visions of a society characterized by inter-ethnic and inter-racial harmony, respect for cultural differences, and a belief that ethnic group cohesion and individual fulfillment is not mutually-exclusive. These goals can best be realized when individuals and communities are enabled to define their cultural identities in an atmosphere of mutual respect.

Whether it is food or other matters of interest to ethnic groups, these concerns should be addressed by the government, if Canada is to thrive. Therefore, the above-mentioned recommendations will not only help achieve sustainable food security for new Canadians and immigrants but will strengthen healthy communities overall.
Chapter 6  Conclusions and Recommendations

6.1 Fostering Sustainable Food Security for New Canadians

The thesis began with a discussion of the importance of food security in general and specifically for new Canadians. This thesis took a systems approach by looking at sustainable food security from a systems perspective, which involves a variety of social, economic, cultural, and environmental factors. The analysis included a literature review and case study. This chapter revisits the thesis question. The main thesis question was:

*How can the regional governments such as the Region of Waterloo, foster sustainable food security for immigrants/new Canadians?*

From the analysis the thesis question was answered, while the literature review uncovered definitions of sustainable food security and helped develop criteria for the same. The case study among South Asian Muslim new-Canadians in Waterloo Region demonstrated that Waterloo Region faces a number of challenges and opportunities to foster sustainable food security for new Canadians. This thesis highlighted those challenges and opportunities using a case study and literature review. It also shows that many findings from Waterloo Region may also apply to other municipalities across Canada, despite some differences in demographics, governance structures in place, physical infrastructure, farming, marketing of foods, etc.

This study does not support the idea that developed countries are food secure and the study has demonstrated that food systems that are more integrated with agro-industry and global markets pose tremendous barriers to foster sustainable food security for some populations in general and especially for immigrants who are living in a predominantly English food culture. As this study shows, many of the current challenges to sustainable food
security are linked to global trends of consolidation in agriculture, a dietary shift to convenience and processed foods, and local responses and initiatives to address food insecurity. Under-representation of immigrants in the decision making process also contributes to exclusion of immigrant communities from the food system and other matters that affect their lives on daily basis.

Finally, the thesis has provided useful recommendations to foster sustainable food security for new Canadians in Waterloo Region and broadly in other local communities. Those recommendations include encouraging participation of new Canadians and immigrants in food systems discussion and policy-making. Moreover, it also recommends a two-way communication between the government and new Canadians to address their needs relating to food and other matters.

6.2 Contributions

6.2.1 Theoretical

This study contributes to the field of sustainable food security by discussing the cultural and religious aspects of sustainable food security. Cultural aspects were discussed by several studies in the past, such as Lima (2008; Welsh et al., 1998). The work of Lima (2008) has discussed the sustainability and overconsumption aspects of food security in an industrial food system, and this study has expanded Lima’s work by adding cultural and spiritual aspects of food security. This study has therefore added more data for an under researched area of food security for new Canadians. It has also added to the field of inclusion of immigrants in western democracies and political system.
6.2.2 Practical

In addition to theoretical contributions, this study also has practical contributions. For example, the thesis has helped to show that the Region of Waterloo and other local governments need to rethink their food policies and start thinking about the inclusion of new Canadians in their food policies. Similarly, it also shows that Immigration Agencies (federal or local) should provide more information on food resources for potential immigrants in addition to language skills. Local actors need to collaborate and to enhance the food systems, because no agency or group of people can change the system on its own.

6.2.3 Implications for Immigrants

In light of the findings of this study, immigrant settlement agencies can encourage immigrants’ ability to keep their food ways and contribute to a sustainable food system. New Canadians can use these findings to help raise their voices and advocate for changes they want in policies for their communities. These findings can be used by them to facilitate their participation and representation in local politics and to encourage them to raise their voices on other forums.

6.2.4 Implications for Food Retailers

Following the recommendations and findings of this thesis, food retailers can create and adapt to local and diverse policy by making culturally appropriate foods available at their stores. This will include all sizes of food retailers. These retailers can also build linkages with local farmers and immigrant communities to create a diverse partnership resulting in a healthy community relationship and economic benefits for all three partners.
6.2.5 Implications for the Region of Waterloo

This thesis can contribute to the food system of Waterloo Region in many potential ways. Starting from production, farmers around the Region should be educated to realize that there are other than traditionally grown foods out there and there is a growing demand for them as the population of immigrants is increasing. Hence, various produce comes to the local market by diversifying the food market through fresh fruits and vegetables, and enhancing sustainability. Retailers can benefit from economic value and social interaction with ethnocultural communities, resulting in an understanding of different cultures and harmony within the society. Immigrants would no longer need to travel to Toronto if their foods were grown within the Region; they will easily engage with local farmers. Regional government can incorporate findings of this thesis into regional planning and open up a diversity department or a section within the department to create shared learning opportunities around food. Similarly, non-governmental organizations can speak for more diversity through food. They can include food as an important factor in their immigrant settlement strategies within the Region.

6.2.6 Limitations

Apart from having findings, some limitations arose including the sample size of 19 interviewees. It could have been a more robust study if the sample size was increased to around 60 participants, thus encompassing more insight into the food system.
Similarly, this is a single case study of Waterloo Region with no comparison to other contexts. Another case study of a different context in a different municipality could have provided a more detailed understanding of the food security.

Food security is a very broad term and this study was based on (Lima, 2008) criteria. There are a number of criteria that could have been addressed but were not addressed due to time limitations.

The final limitation of this thesis was that this study was conducted with South Asian Muslims. The findings would have been enriched if it were conducted with two Muslim communities from different parts of the world.

6.3 Recommendation for Future Research

The above-mentioned limitations provide a space for future research of similar studies that include different considerations. For example the sample size can be increased and a comparative study of another context can enrich the literature on food security. Similarly another study with another faith-based community like Sikhs, Hindus, and Buddhists can provide us a more detailed understanding of cultural and spiritual preferences of such communities. Additionally a longitudinal study on 5-10 years basis can assess the change in a detailed manner and provide potential actions for change to happen at local and federal levels. Future research can also include the insights of federal immigration and provincial agriculture departments who have a direct role in immigration and food related policies.
6.4 Final Remarks

This thesis was written by a new Canadian who came with his family from Northern Pakistan. It is written from the point of view of a participant observer.

Food security is an important issue to everyone but it also has personal meaning. I grew up in a small rural village that relied on farming to live. Ninety percent of the population of village was farmers working hard on their own little farms. The majority of our food, except some pulses, was fresh, produced inside the village. All the food was produced within 5 miles radius of the village. Farmers used to grow wheat crops and would harvest in the months June-July. Wheat is a staple food of our village and most of the wheat consumed by people was produced inside the village. Harvesting season used to be very busy for farmers, in fact for the whole village. Friends and relatives would help each other in the threshing of wheat, the wheat that would be used for the rest of the year. A portion of produce would also go to deserving and poor families.

Vegetables were grown and consumed inside the village and surplus would go the city market 5 kilometers away from the village. All kinds of fresh, green, delicious and nutritious vegetables like tomatoes, okra, potato, spinach, coriander, chickpea, cabbage, cucumber and rapini were produced right on the little farms. Similarly hens were part of every house that would provide us eggs and meat and also serve the cultural purposes of hospitality and gift giving. Many animals have been domesticated and raised for the supply of milk, cheese, butter, yogurt and meat. They included cows, buffaloes, sheep and goat. Each household had its small herd of a few animals, sheep or goats.

Butchers would sell fresh meat at the village market and people of the village would also slaughter an animal and clean cut into pieces and then each person would be charged for
their share of meat. People would sometimes slaughter an animal and distribute its meat in the whole village for charity.

Every day, fishermen from the village would bring freshly caught fish and each month a household would put some fish on their tables. It was a life of fresh food and community involvement.

Since the village depends directly or indirectly on the earth’s natural resources, there was an informal institution in place to protect those resources. I can say that it was like the village’s own kind of ministry of natural resources and environment. A person from the village was appointed by the elders to oversee village forests, and report any damage or loss to the forest. He would be compensated through produce from every household of the village. There was no government intervention necessary for the smooth running of the system.

Leaving that village, I immigrated here to Canada and settled in Waterloo Region along with my family. Coming here was a surprising change; a change in weather, language, culture, food, food ways, and access to jobs. Everything seemed very strange. After finding a suitable place to live, the next step was to look for appropriate food. First of all, I had to ask somebody (usually a friend) to take me to the grocery store, because I was not able to walk to the store in harsh weather and even if the weather was good, it was difficult to bring home groceries in a bus, changing stops and consuming too much time; it was a real challenge. Inside the grocery store, our family was astonished by not seeing our familiar vegetables in the store. There was also no halal meat, and milk was packed coming from a company instead of a local farmer. This was a surprise for us. Most of the available fruits and vegetables were found to be imported with labels like “Product of Mexico, Product of
California etc”. I saw frozen vegetables for the first time in my life. We picked some of the vegetables within the range of available choices and milk. To get halal meat we had to go to a small ethnic food retailer. Inside the ethnic store I was pleased to find some familiar foods, but halal meat and my familiar vegetables were much too expensive.

A year later I learned about a farm, and by visiting the farm, I saw at least some fresh tomatoes, green chilies and cabbage which did not need to be continuously sprayed with water to keep their look fresh, as it is happening in all supermarkets like Price Chopper, Food Basics, Zehrs, Wal-Mart etc. My family picked our own tomatoes and green chilies and experienced the soil and farming for the first time since we came here. It was then that I realized that to eat healthy, culturally-familiar food, it was necessary to change public so that people like me and other immigrants can have food appropriate to their cultural and spiritual needs. It is necessary to have a policy that ensures economic and physical access to food that satisfies the cultural and spiritual needs of people. I never found the taste of fresh oven cooked maize flour bread with butter that my mother would give as my lunch after school in the fresh looking but toxin-treated processed and packed food supermarket isles. Therefore this question of fostering sustainable food security for immigrants was raised in this thesis. And this is not the end of the tunnel: it is not just food, there were issues of employment. My teacher from back-home, who earned a PhD from Australia, has been driving a taxi cab here in Waterloo Region. There are numerous examples of qualified people whose skills can be utilized in a very better way and they could contribute more than just driving taxi or working odd jobs in factories. I suggest that the government needs to take in these valuable human resources to enrich their departments because Canada is a multicultural country whose
professionals come from various geographical locations just as much as the clients do. This is the only way to design and provide really needed services to new Canadians or different ethnic populations.
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Appendix 1 Maps

Map of Waterloo Region

Source: Newcomers Waterloo Region.
Appendix 2: Questionnaire for Key Informants; Interviews in Waterloo Region Ontario

Questions for Community Representatives

Ensuring availability and access to culturally appropriate food

Do you think that food available in Waterloo Region is appropriate to your cultural preferences?
Do you have the means to buy food according to your cultural and religious preferences?
Does your income allow you to buy food enough for your family’s needs?
Are food stores located at a walking distance to you? How far you need to go to get the food of your choice?
Do you know of any programs and services in the region that provide foods appropriate to certain immigrant groups and communities? Have you used those services?

Ensuring and promoting social integrity and equity

How much of your food is produced locally?
Do you think that local food production is important to welfare of local people?
What can be done to ensure access to equal opportunities for our local farmers?
When buying your food, do you keep in mind these factors?
How much more are you willing to pay for food if workers were guaranteed a living wage and safe working conditions?
How can we improve access to basic human needs such as food, housing, health care, education, dignity and good working conditions, in our food system?
(Note: by food system I mean all players involved in production, consumption, and selling of food)

Protecting the environment
Do you think that your food choices affect the surrounding environment and other forms of life including plants and animals?

Do you think it is important to protect our environment for our future generations?

Do you think that it is important to buy locally-grown food? Why?

What can be done to make the foods of your choice available locally here at the Region of Waterloo?

Supportive structures public/private

As an immigrant, how much easier is it in this region for you to get a healthy and safe food of your choice? Please explain?

Do you think the regional government is doing enough to make available foods of your choice (of course they should be safe, healthy, nutritious and produced in way that protects the environment and promote social justice),? What is the provincial, national; or global pressure in this regard?

Are there policies or laws that prevent you from consuming foods that are prepared in culturally appropriate ways?

Questions for Government Officials/Researchers

What is your position here and what are your responsibilities?

Ensuring availability and access to culturally appropriate food

Do you think that enough healthy food is available in Waterloo Region to feed every resident?

Do you think that people, particularly immigrants, have economic and physical access to nutritious food in Waterloo Region? Do you think everyone has access to diets specific to his culture and religion?

Do you think that initiatives to address the food insecurity are addressing the needs of immigrants?
(If the participant says ‘no’, this question will be asked.) What are the major barriers in addressing those needs?

**Ensuring and promoting social Integrity and equity**

In your opinion, how is equity and social integrity affected by the current local food system? For example, access of local farmers and consumers to equal opportunities. In order to improve both equity and social justice in the local food system, what can be done on the regional level? How can we incorporate the settlement and food related needs of immigrants in the region?

**Protecting the environment**

Do regional programs like food banks take environmental impacts of food production into account, e.g. attempt to buy from local suppliers, etc? How can we address the issue of food insecurity, especially for immigrants in a way that protects the natural environment?

**Supportive structures public/private**

What is the regional government doing to address the food insecurity among immigrants? What are the main challenges in this area? What some areas of opportunities?

**Questions for Staff of Civil Society organizations/Food system activists**

What is your position and what is the mandate of your organization?

**Ensuring availability and access to culturally appropriate food**

What is your opinion about the availability of food in Waterloo Region?
If it is available, is it safe, nutritious, healthy and meet the needs of local population especially immigrants?

Have you met immigrants asking about information or access to foods that are adequate for them?

Are there limitations in policies that make it difficult for immigrants to prepare and consume food in a culturally-appropriate manner? For examples Muslims need to perform sacrifice of animals on Eid-ul- Duha celebration. Can they perform it here in the region? What can be done to ensure that enough safe and nutritious diet is available to immigrants in the region? What role can you and your organization play?

**Ensuring and promoting social Integrity and equity**

What is the value of social integrity in a food system and how can a food system ensure social justice?

Can immigrants be provided with food appropriate to them (both in terms of religion and culture)?

How social justice can be ensured within the food system? What changes do we need to make to food system?

**Protecting the environment**

Do you think that our food system is protecting the natural environment?

What can be done to achieve a culturally appropriate food system while protecting our environment?

**Supportive structures public/private**

Are there policies and practices in place to ensure that immigrants have access to sufficient, nutritional and culturally-appropriate food?

How would you define sustainability?
What importance do you attach to ensure a sustainable and culturally appropriate food system? What the barriers and what are areas of opportunities?