Environmental concerns and understandings of environment in racialized, migrant communities: Montréal's Ilankai (Ceylon/Sri Lankan) Tamil community

by Kabisha Velauthapillai

A thesis submitted in partial fulfillment of the
requirements for the degree of B.Sc. in Environment

School of Environment
McGill University
Montréal (Québec) Canada

April 2018

Acknowledgements

I am grateful to all who have offered their support and critical insight throughout this incredible learning process. I start with a sincere thank you to my parents, Mummi and Pappa, and siblings, Anna and Akka, for their love, informal teachings, and thorough feedback. I am deeply appreciative of Mummi for her tireless translation work, among the many other incredible things she has done for me. நன்றி மம்மி. A heartfelt thank you to Jill Hanley, my supervisor, who never stopped encouraging. The space you have given me to lead this project has allowed me to reflect on, recognize, re-value, and grow my roots as an Ilankai Tamil individual, family member, and community member. Your invaluable experiences redefining the boundaries between migrant communities and academia, as well as your commitment to critical inquiry and justice, are teaching me to approach my own work in a similar way. I look forward to learning and sharing more with you in the days to come.

A big thank you to my close friends, who were committed to distributing the questionnaires within their own networks and who also provided thought-provoking feedback. This process was an enjoyable one with the support from the participants and other Ilankai Tamil community members whom I met along the way. I would also like to thank Julia Freeman, at the McGill School of Environment, who has been so insightful with questions and interpretations that contributed to the richness of this research. Thank you to Berenica Vejvoda, at the McGill Library, who has helped me search for and acquire necessary data to guide my process. I am also greatly appreciative of Kathy Roulet at the School of Environment, without whom I could not have made it into this thought-stirring Environment program. Last, but certainly not least, I am grateful for the McGill School of Environment for providing me with the funding to pursue and sustain this project.

Abstract

In countries with high numbers of racialized migrants, representations of racialized migrant communities, and racialized communities in mainstream environmental movements and discussions are low. Definitions, framings, and priorities can vary between racialized and non-racialized communities due to varying historical, social, and geographical contexts. In consequence, these communities may be prevented from participating in decisions on environmental issues that may affect them. Few studies have investigated concerns within recent migrant communities of racialized backgrounds. This focused on one racialized migrant community in Montréal: the Ilankai (Ceylon/Sri Lankan) Tamil community. Guiding this project are two central questions: (1) **What are the predominant 'environmental concerns' in the community** and (2) **which 'environments' are relevant for the community**. Questionnaires distributed mainly through conveniences sampling resulted in 103 participants. Conversations that took place before, during, and after the questionnaires informed the interpretation of results. Participants' environmental concerns were often centered on the local, built environment and health issues. Air quality and the cleanliness of the urban built environment were recurring concerns in the questionnaire. Environments in Ceylon were shown to matter to the community. However, there often slight or large differences youth and adults/older adult results, with youth often focused on what is typically considered as the 'natural environment.' There are two main implications of the results. First, there is an opportunity for grassroots organizing around local and potentially, transnational or translocal, environmental concerns within the community, working toward procedural justice. Second, environment studies that inquire into concerns of racialized migrant communities should consider going beyond environments in which these communities are physically present. Studies should explore the relevance of the 'homeland' for diasporic communities.

Table of Contents

1. Introduction

1.1 Background

The environment is at the forefront of local, national, and international concerns. Though, environmental concerns can vary between nations, localities, and groups within theses localities. This raises the questions: "what concerns are prioritized?" and "whose concerns?" Over a fifth of people in Canada are first-generation migrants, meaning they were born outside the borders of Canada. Most individuals are racialized, coming from Asia, the Middle East, and Africa. Additionally, nearly a third of second-generations migrants, meaning children of migrants, are racialized (Statistics Canada, 2017). However, within Canadian environmental organizations, representations of racialized migrant communities, and racialized communities in general, are low (Jafri, 2009).

Definitions of environment, the framing of concerns, and prioritization of certain concerns over others in mainstream environmental movements can pose structural barriers that promote exclusion of racialized communities (Gibson-Wood & Wakefield, 2013; Jafri, 2009). Definitions, framings, and priorities can vary between racialized and non-racialized communities due to varying historical, social, and geographical contexts. In consequence, these communities may be prevented from participating in decisions on environmental issues that may affect them.

There has been significant research on environmental concerns within racialized communities (Mohai & Bryant, 1998). Few studies have investigated concerns within recent migrant communities of racialized backgrounds. Research on environmental concerns of these migrant communities in Canada is scarcer, and existing studies are based in Toronto (Amar & Teelucksingh, 2015; Gibson-Wood & Wakefield, 2009). Montréal is home to many recent migrant communities of racialized backgrounds. These communities are often marginalized from mainstream society (Berry & Sabatier, 2011; Hiebert, 2015). Consequently, there may be an inadequate reflection of these communities' environmental conceptions and concerns in Montréal's mainstream environmental organizations.

1.2 Purpose

Because of the exploratory nature of this study, the research will be limited to better understanding the realities of one recent migrant community in Canada: Montréal's Ilankai (Ceylon/Sri Lankan) Tamil community. I chose this community because I identify as Ilankai Tamil. My belonging to the community provides me with informal knowledge on existing environmental concerns and conceptions that I could reflect and draw on over the course of this project. Additionally, as a member of the Montréal Ilankai Tamil community in Montréal, my existing social networks facilitated my research. Montréal is the location of choice because of my current geographic positioning.

Guiding this project are two central questions:

1. **What are the predominant 'environmental concerns' in the community?**

Presently, there is no clear understanding of the main environmental concerns within Montréal's Ceylon/Sri Lankan Tamil community. At a community level, this research assesses collective environmental issues of concern to the Montréal Ceylon/Sri Lankan Tamil community and may facilitate community mobilization to address concerns and increase representation in the Montréal, and possibly, Canadian, environmental movements. Since "environmental concerns" are not widely discussed in the community, I will focus on investigating environmental concern through questions that are relevant to health, attempting to capture concerns that may not otherwise be termed as 'environmental concerns.'

2. **Which 'environments' are relevant for the community?**

This question addresses an important literature and intervention gap. Environments typically referred to in environmental discussions are the immediate physical (and often natural) environment. In the context of migrant communities, whose historical, social, and geographical contexts vary from non-migrant communities, the environments referred to are those in the host nation. However, migrant communities are also diaspora communities, meaning place attachments can transcend borders, are fluid, and vary between members and over time. Thus, the relevance of environments in the homeland, and not only the environments of the host nation, needs more in-depth understanding. Better understanding of conceptions of environment may allow better understandings of environmental concerns and the frames used for these concerns.

1.3 Terminology

Recent migrant community or migrant community: The term refers to a community consisting mainly of first- and second-generation international migrants.

Racialized: The term refers to people who are systemically oppressed due to social constructions of race.

Ilankai/Ceylon/Sri Lanka(n): Ilankai and Ceylon are terms often used in the Ilankai Tamil community to refer to what is more commonly known as the island nation of Sri Lanka.

1.4 Overview of the following sections

I will start by developing a literature review, consisting of two sections: (A) systemic exclusion of racialized communities from the mainstream environmental movement and (B) environmental concern and understandings in the context of migration. A conceptual and theoretical framework then provide a direction for the rest of the research. I continue by providing a brief historical and present background of the Ilankai Tamil community in Montréal. After, I describe the methodology and methods used in this study. What follows are the results from the questionnaire. I then discuss the results while using a second source of data to inform and interpret the discussion: conversations with participants that took place before, during, and soon-after the questionnaires. I end with a conclusion and consider the next steps in this project.

2. Literature Review

There is an absence of literature, both academic and non-academic, on the environmental concerns of Montréal's Ilankai (Sri Lankan) Tamil community. Literature on environmental concerns of Ilankai communities both in Ilankai and the diaspora are also lacking. Environmental concerns of South Asian ethnic diaspora communities are also scarce or non-existent. I draw on two bodies of literature to inform my research. Part A discusses the systemic exclusion of racialized communities from mainstream North American and European environmental movements. I start with a discussion on the long-standing debate of 'WHO cares about the environment.' I will follow by shifting the question to 'who cares about WHAT environments' to understand the low representation of racialized communities as a systemic exclusion. The last section of this part of the literature review considers the environmental justice movement, an alternative for non-mainstream conceptions of environment and environmental concern.

2.1 Systemic exclusion of racialized communities

I. The question of 'WHO cares about the environment'

Disinterest among racialized communities: Maslow explains

In the mainstream North American and European environmental movements, racialized communities are underrepresented. A 1996 report by Friends of the Earth found that the environmental movements in the UK are largely dominated by white, middle-class people (as cited in Agyeman, 2001). Gibson-Wood & Wakefield (2013) and Jafri (2009) discuss the similar whiteness of the mainstream environmental movement in Canada. Both Gibson-Wood & Wakefield (2013) and Jafri's (2009) analyses are based in Toronto: home to the largest number of racialized migrants in Canada (Statistics Canada, 2017). Despite this, Toronto's mainstream environmental movement remains largely white and middle-class.

The low presence of racialized people is often interpreted as racialized communities having a lack of concern or interest about environmental problems (Agyeman, 2001; Clarke & Agyeman, 2011; Jafri, 2009). The perception is that racialized communities, who have higher proportions of people on lower-income than their white counterparts, care less about the environment. This is based on the post-materialist theory, which claims that people who are more focused on meeting their basic needs have less energy and time to concern themselves about environmental issues (Inglehart, 1995; Lovelock, 2013). Whittaker et al. (2005) refer to this as "Maslow's (1970) hierarchy of needs theory." Basic needs include "housing, education, jobs, crime, discrimination" among others (Mohai & Bryant, 1998).

Racialized communities do care: environmental deprivation theory

Extensive mobilization, organizing, activism, and research by marginalized communities, particularly low-income and racialized or Indigenous, have demonstrated that the lack of concern and disinterestedness of their communities in environmental issues is false. Numerous communities have mobilized around environmental issues that have jeopardized their health (Mohai & Bryant, 1998). Whittaker et al. (2005) discuss the "environmental deprivation theory,"

explaining that communities with locally-polluted environments have more concern for environmental protection.

Shifting the focus from 'WHO cares' to 'who cares about WHAT'

However, both theories do not effectively explain the idea of environmental concern. Whittaker et al. (2005) discuss "environmental deprivation theory" as alternative to "Maslow's (1970) hierarchy of needs" for explaining environmental concern. Both theories are premised on objective notions of environmental concern, meaning they assume that they are referring to the same environment and same types of environmental concern (Whittaker et al., 2005). Each makes an implicit assumption of a type of environment and environmental problem, but does not recognize this assumption. By applying Taylor's (2000) social-constructionist approach, we develop a more nuanced understanding of the relationship between these two theories, rather than an oppositional relationship. This oppositional relationship is centered on the questions of: 'who cares more?'

A more appropriate question may be: 'who cares about what?' Each theory is based off one group of reference, who implicitly shapes the environment and environmental problems being referred to. For Maslow's (1970) hierarchy of needs, the group of reference is white, middle-/upper-class individuals. For environmental deprivation, we consider racialized, low-income communities. The environmental concerns and, by consequence, environments, vary, as they are defined by different groups of people. Shifting the 'who cares more' question to 'who cares about what' can help us better understand the low presence of racialized communities in the mainstream environmental movement.

II. Who cares about WHAT environments?

Frames and social location

Taylor (2000) emphasizes the idea of frames as being vital to understanding 'who cares about what' environmental concern. Frames are socially-constructed understandings of reality. Socially-constructed knowledge and ensuing action are a product of the "social location[s]", meaning one's social positioning in society, of the individuals who construct the ideas (Taylor,

2000). Taylor mentions "race, gender, and class" as influencing factors. Groups with different social locations construct different understandings of environment and environment, environmental concern, and environmentalism. Different social locations can also come with different amounts of power and influence in society. Therefore, social groups with more power in society also legitimize their framings of environmentalism (environmental action), environmental concern, and environment as dominant over other framings by marginalized groups.

Frames producing exclusions

As Gibson-Wood & Wakefield (2013) discuss, "we must consider whose experiences and ways of knowing about the environment are included or excluded from our very definitions of 'the environment' and 'environmental problems'" to truly understand the low representation of racialized communities in mainstream environmental movements. Framings around environment shape the framings of environmental concern and vice versa (Whittaker et al., 2005). Our conceptions of environment determine which types of concerns are validated as appropriate environmental concerns.

Mainstream conceptions of environment are often framed by white, middle-class communities, making the movement inaccessible or inappropriate for many racialized communities. Resultantly, downstream concerns are also framed according to this dominant perspective (Jafri, 2009; Teelucksingh, 2016). Gibson-Wood (2013) found mainstream environmental organizations in Toronto are beginning to recognize that "excluding other ways of knowing and caring about the environment" may be tied to the underrepresentation of racialized communities in their organizations.

The social constructionist perspective allows us to understand that the question of 'which types of concerns' is directly related to another question: 'whose concerns' (Taylor, 2000). These framings, in turn, shape who participates in environmental actions and how: environmentalism. Therefore, suitable inclusion of racialized communities involves not only inclusion of our physical presences, but also recognition and inclusion of varying conceptions of environment, different environmental concerns, and environmentalisms.

Framings of environmental concerns and environment

In mainstream movements, environmental concerns typically exclude social problems such as "jobs, housing, transportation, public health, racial and sexual inequality, violence, poverty, reproductive freedom" (Di Chiro, 2008). Social problems tend to be local environment problems, related to the environmental deprivation theory (Whittaker, 2005). Problems that are validated as being environmental center on topics such as "global warming, natural resource conservation, pollution, species extinction, overpopulation" (Di Chiro, 2008). As Whittaker et al. (2005) explain, these tend to be concerns that do not directly or personally involve the individual.

The environment that environmental concerns tend to be based off is typically the natural environment, distinguished from the built. For instance, preservation approaches for non-human life stewardship involves limiting human impact on these 'natural landscapes'. Marginalized communities are subject to exclusion from these areas such as preserved landscapes. This is often the case with Canadian National Parks, where those who have access to the space are largely white and middle or higher income, meaning they can afford to leave their urban or suburban environments to enjoy this 'safeguarded' nature (Haluza-Delay & Fernhout, 2011).

Systemic exclusion from environmental decision-making

The lack of presence of racialized communities in the environmental movement results in their exclusion from decision-making processes concerning the local, national, and global environments (Carter et al., 2013; Gibson-Wood & Wakefield, 2013). As Gibson-Wood & Wakefield (2013) describe, the systemic exclusion is a form of "participatory injustice". Those with less "social and economic capital" are left at the "margins of planning, visioning, and decision-making" (Masuda et al., 2010). This form of exclusion is not a result of direct, evident actions that are simple to identify, but rather, subtle. The underrepresentation of racialized communities in the environmental movement is difficult to address, because it requires a systems-level larger-scale understanding and approach for addressing this issue (Teelucksingh, 2016).

III. A movement for alternative framings of the 'WHAT'

Environmental justice: an alternative to the mainstream movement

The environmental justice movement is a significant component of this systems-level change: an alternative to the mainstream environmental movement. Marginalized communities that were not and are not properly represented in the mainstream movement have been building this alternative through grassroots research, organizing, and activism. Environmental justice consists of demanding equitable distribution of environmental hazards, and increasingly, environmental goods: distributive justice (Walker, 2012). It also involves the power to participate in and/or lead environmental decision-making processes: procedural justice (Schlosberg, 2004). Distributive justice is often a result of inadequate procedural justice (Walker, 2012).

The roots of the environmental justice movement originate in the United States, emerging out of the Civil Rights movement. Primarily low-income, African-American communities experiencing public health injustices, such as inequitable distributions of toxic facilities and other hazards, brought forward the concept of environmental justice (Masuda et al., 2010; Walker, 2012). Though, similar movements have been taking place in other areas of the world, such as in Canada, throughout history and in the present but have not necessarily fallen under the 'environmental justice' name (Waldron, 2018).

Learning from the research, organizing, and activism that has shaped the current environmental justice movement has been incredibly useful for informing my research project. The environmental justice movement demonstrates the high importance of local built environments for marginalized communities, particularly those who are facing inequitable distributions of environmental hazards or goods, emphasizing health. The movement has also demonstrated the systemic exclusion of these socially-marginalized communities from the mainstream environmental movement because of the different environments and environmental issues that are legitimized in each.

Limitations of the dominant environmental justice scope

Environmental justice work has largely focused on environmental racism toward low-income racialized or Indigenous communities in the US and specifically, the distributive injustice component of the movement. While there are important experiences and work that I draw from,

I also acknowledge that the main historic and present foci on environmental racism and distributive justice are limited in scope.

The predominant scope may be limited, but environmental justice is still a malleable construct. For instance, Canadian scholars have found the environmental justice movement is expanding to increasingly include procedural justice (Amar & Teelucksingh, 2015; Haluza-Delay, 2007; Teelucksingh, 2016). The work pursued in this project is an attempt to contribute to the expanding scope of the environmental justice movement. The focus on environmental racism and distributive justice may be appropriate for many situations in the US context and some situations in the Canadian context (Waldron, 2018). Though, we must be cautious and critical when drawing from the US-based body of work for the Canadian, and more specifically, Montréal context. Given the varying social, political, historical, economic, and cultural national and local contexts, as well as the varying contexts of individual racialized communities, the injustices in the US are not necessarily a reflection of the Canadian context (Haluza-Delay, 2007). Urban spatial distributions based on race and income are not the same in Canada as in the United States (Andrey & Jones, 2008; Buzzelli & Jerrett, 2004). Unlike the US, where racial segregation in urban areas is quite prevalent, stark patterns for Montréal and other Canadian urban locations are not apparent (Haluza-Delay, 2007).

The differences in US and Canadian spatial patterns does not mean that there are no relationships between race or specific racialized communities and environmental inequities. There is much less research inquiring about environmental hazard or goods distribution inequities in racialized communities in Canada. Existing studies vary based on city and types of hazards. Andrey & Jones (2008) found no relationship between visible minorities and noise pollution, presence in seismic zones, or proximity to fire-prone areas in the Greater Vancouver. However, Buzzelli & Jerrett (2004) found that different visible minority populations in Hamilton, Ontario were associated differently with air pollution. Latin Americans were found to have a significant and positive association, Blacks had no association, while Asians had a negative relationship with air pollution (Buzzelli & Jerrett, 2004). On the other hand, Premji et al. (2007) found that only proportion of South-East and South Asian immigrants were associated with higher air pollution

levels in Montréal, and household income was not a confounding factor. The findings demonstrate potential city-specific patterns, that may not be present at the national-level.

Whether or not distributive environmental inequities exist, it does not mean that environmental injustice is not present. Racialized communities, and more generally, socially-marginalized communities, may still have environmental concerns that they are not able to address due to systemic barriers. Studies inquiring into environmental concerns held by racialized communities are vital. However, existing studies are few, particularly in the Canadian context (ex. Gibson-Wood & Wakefield, 2013).

The US community mobilization context is significantly different from the Canadian. While large-scale community mobilizations do take place in Canada, they are less prominent than those in the US. Different racialized communities have different experiences of racialization in different places. For instance, the experience of many African-American and Latinx communities in the US are not the same as recent racialized migrant communities in Canada. Organizing and activism for environmental justice are much more prevalent in the former than the latter. However, this does not mean that environmental concerns are not present in racialized migrant communities in Canada. In brief, national and even city contexts as well as the specific community in question largely influence organizing and activism. Therefore, it is important to inquire into local, built environment concerns related to health, which have been at the forefront of environmental justice movements.

2.2 Social location -where is migration?

In part A, two theories explaining 'WHO cares about the environment' were discussed: Maslow's (1970) hierarchy of needs theory and environmental deprivation theory. Both theories argued environmental concern to be based on race and income, particularly in the US context, and both came to different conclusions. Maslow's theory explained that racialized communities were disinterested in environmental issues. On the other hand, environmental deprivation theory helped explain differing conceptions of environment and environmental concern in lower-income racialized groups, mainly in the US. These alternate conceptions and concerns about environment motivated the environmental justice movement.

Both environmental deprivation theory and the environmental justice framings of marginalized communities tend to focus on two main dimensions of social location: race/Indigeneity and income. These dimensions are highly important for understanding and contextualizing environmental concerns and conceptualizations of the environment. However, social location is shaped by numerous other factors such as migration trajectory, gender, and disability, among others. Environmental conceptions and concerns are complex social constructions that are shaped by the interacting dimensions of social location.

While this study does not claim the importance of any dimension of social location over another, it develops on the importance of the migration trajectory. Racialized migrant communities are a significant composition of the North American population. The 2016 census found that more than 1 out of 5 people in Canada are of a "visible minority" population (Statistics Canada, 2017). The proportion of visible minorities is projected to grow in coming years. However, migration trajectory has been largely neglected in the existing literature as well as in practice. In part B of this literature review, I will discuss the importance of considering migration trajectory in environmental studies. The sections go as follows: current state of the existing literature about different groups' environmental concern, limitations of the literature, different models of the migration process, and transnationalism as applied to environmental studies.

I. Themes in the literature

With the environmental justice movement rooted in the civil rights movement, studies on environmental concerns of racialized groups primarily focused on the relative environmental concerns between African-American and white people in the US (Arp III & Kenny, 1996; Bullard & Wright, 1987; Mohai & Bryant, 1998; Sheppard, 1995). With increasing numbers of migrant communities, studies are expanding beyond the Black-White or racialized-White dichotomy (Macias, 2016).

Rapid and significant increases in immigration in recent times have incited studies on environmental concern migrant communities. Recent studies are extending their inquiries to include different populations, particularly, migrant populations because of the increasing influxes of migrants in the US, Australia, New Zealand, the UK, and Canada (Agyeman & Evans, 2004; Amar & Teelucksingh, 2015; Burn, 2012; Burningham & Thrush, 2001; Carter et al., 2013; Clarke & Agyeman, 2011; Deng et al., 2006; Gibson-Wood & Wakefield, 2013; Greenberg, 2005; Hickcox, 2017; Hunter, 2000; Johnson et al., 2004; Leung & Rice, 2002; Liu & Segev, 2017; Lovelock et al., 2013; Macias, 2016; Pfeffer & Stycos, 2002; Whittaker et al., 2005; Wiener et al., 2016). Studies that include migrant communities in their research design typically use a comparative approach where migrant communities' concerns are evaluated against non-migrant groups' concerns.

Many of these studies focus on the relative environmental concerns and perceptions of different racialized and non-racialized groups (Carter et al., 2013; Deng et al., 2006; Greenberg, 2005; Johnson et al., 2004; Leung & Rice, 2002; Liu & Segev, 2017; Macias, 2016; Wiener et al., 2016; Whittaker et al., 2005). Some of these studies also inquire into whether there are differences between immigrants and non-immigrants within the racialized groups (Greenberg, 2005; Johnson et al., 2004; Macias, 2016). Other studies only focus on the relative conceptions and concerns between immigrant and non-immigrant groups, without distinguishing between racialized and non-racialized groups (Amar & Teelucksingh, 2015; Hunter, 2000; Lovelock et al., 2013; Pfeffer & Stycos, 2002).

II. Limitations of the current body of literature

The existing body of literature on migrants, racialized migrants, and environmental concern are important as they highlight the importance of considering migrant communities in the

environment-related discussions. However, current studies are limited in three ways: (1) their reliance on the comparative approach, (2) homogenizing racialized communities, and (3) insufficient studies including Asian communities, including North, South, Central, West, and East Asian communities.

Firstly, the comparative approach is has helped garner information on environmental concern in locations where there are migrant and non-migrant communities. However, concerns and resulting environmental behaviours are typically evaluated using the non-migrant community as reference group, where questions and conceptions have been formulated with this non-migrant group in mind. For instance, Pfeffer & Stycos' (2002) study evaluate participation in environmental behaviours, such as recycling, defined by non-migrant communities. The downfall of such comparative approaches is this use of the default environmental conception and concerns, which may not be recognized by the migrant communities in question. This approach contributes to the implicit exclusion and othering of migrant communities' conceptions of environment, environmental concern, as well as their presence. By prioritizing comparison over understandings of specific communities' environmental conceptions and concerns, true inclusion of migrant communities in environment discussions and environmental actions cannot be achieved. That is, procedural justice in environmental decision-making cannot be achieved.

Second, in many, though not all, of these studies, racialized migrant communities are homogenized. People of Asian origins and Latinx origins are grouped together without differentiating between communities within the specific groups. Such groupings, while useful in assessing general patterns, also neglect specificities of different communities that compose each group. For instance, such a grouping can mask collective migration trajectories, geographic, or economic differences between communities. These differences may shape different environmental concerns and conceptions in that community.

Third, studies on Asian communities are limited. Studies that do include Asian communities are focused on the comparative approach (Burn, 2012; Deng et al., 2006; Greenberg, 2005; Johnson et al., 2004; Leung & Rice, 2002; Wiener et al., 2006). Literature that focuses on comparisons between Asian and non-Asian groups often uses the New Environmental Paradigm

(NEP) scale, which assesses environmental values on an ecocentric to anthropocentric continuum (Burn, 2012; Deng et al., 2006; Leung & Rice, 2002). While used recurrently in environmental studies to qualify environmental thought, Carter et al. (2013) highlight that the NEP scale reduces 'environmental thought' to this simple continuum, neglecting the complex interplay of other factors that shape environmental conception and concern. In Canada, nearly half the immigrants are from Asian countries (Statistics Canada, 2017). Therefore, more research is required to better understand Asian migrant communities' environmental conceptions and concerns in Canada.

Addressing both the limitations of the dominant comparative approach and homogenization of Latinx communities are the few studies that focus on more in-depth understandings of a single ethnic migrant community. More in-depth approaches on one population can provide insight on environmental concerns and conceptions that may be shaped by social, political, historical, economic, and cultural contexts. A study exploring environmental concerns and conceptions in a specific racialized migrant community can ask questions relating to the context of that population, that may not be relevant for, say, non-migrant populations. An example of such a question is one that focuses on the homeland, which may be irrelevant for non-migrant communities. Qualitative approaches have been used to better understand and contextualize environmental concerns and conceptions within specific communities' contexts. Carter et al. (2013) discuss environmental values of Mexican immigrants in Iowa. Gibson-Wood & Wakefield (2013) explore environmentalisms of Hispanic residents of Toronto. The Field Museum studies inquire into environmental concerns of a Chicago African-American community and a South Asian community (Hirsch & Malec-McKenna, 2011; ECCo, 2011). Since most of literature investigating environmental concerns and perceptions are based in the US, most studies focus on Latinx communities. There is a lack of studies that focus on specific Asian ethnic communities.

III. Models of the migration process

Migration: A linear process

Existing studies exploring the environmental concerns of migrant communities focus on the following migration factors: (1) the local or national environments and (2) the process of acculturation. Environments of concern to migrant communities are deemed to be the local and

national environments in which the communities are physically present (ex. Agyeman, 2001; Amar & Teelucksingh, 2015; Clarke & Agyeman, 2011; Gibson-Wood & Wakefield, 2013). Other studies hone in on the influence of the acculturation process in shaping environmental concerns of migrant communities (Johnson et al., 2004; Hunter, 2000; Macias, 2016). Certain studies explore both the environmental concerns in the host community, whether local or national, as well as the influence of acculturation on these concerns (Burningham & Thrush, 2001; Greenberg, 2005; Lovelock et al., 2013; Macias, 2016; Pfeffer & Stycos, 2002).

These studies on migrant communities' environmental concerns and environmentalisms adopt a linear model of migration. Linear understandings of migration assume the end stages of migration to be the local environment and the acculturation process. While current local environments and the process of acculturation are important in understanding migrants' environmental concerns, they do not effectively consider the realities of migrant communities. A focus on the current local environment neglects migrant communities' ties with their homelands. The focus on acculturation reduces historical, social, political and economic contexts, minimizing migrants' realities to the concept of culture.

Transnationalism

In these discussions about environmental conception, concern, and environmentalism, migrants are not considered as part of a diaspora. The term diaspora, by definition, relates the collective to the homeland, whereas migrant is void of this recognition of continuous fluxes and interactions between migrants and their homeland, in whatever form these interactions may take shape. The term diaspora, may be more appropriate in addressing migrant communities, because it includes the continued relationship with the homeland within its definition (Blunt, 2007). This is not the case for the term migrant. In the following pages, I will attempt to theorize the importance of the homeland when considering environmental conceptions, concerns, and resulting environmentalisms within racialized recent migrant communities. That is, how does the process of migration influence framings of environments?

Migration must be considered in the context of transnationalism and diaspora studies. These two latter terms complicate the simplified linear understandings of the migration process.

Understanding migrant communities as diaspora communities implies a relationship to the homeland and provides space for discussions of memories and place attachments relating to this homeland (Tolia-Kelly, 2004). The concept of transnationalism goes further and recognizes the continued fluxes, such as exchange of information, remittances, and maintaining and building social ties with communities in the homeland (Kelly & Lusis, 2006). Broadening understandings of migration to incorporate a continuous and fluid trajectory also widens the space for recognizing the on-going social, physical, mental, emotional, and spiritual ties migrant communities may maintain with their place of origin (Blunt, 2007). Despite their physical presence in their destination, communities are continuously participating in some type of exchange with their homeland. These exchanges include maintaining and building social ties with friends, families, and others, contributing to the economy in their place of origin, importing foods from their place of origin, information exchanges, and more. Other types of ties with the homeland are maintained, such as memories, which span different timeframes while transgressing spatial borders as well. The linear understanding of migration simplifying the realities of these communities by neglecting translocal and transnational processes (Greiner & Sakdapolrak, 2013; Kelly & Lusis, 2006).

IV. Theorizing environmental concerns and transnationalism

In the above-mentioned studies diaspora and transnationalism are neglected concepts. The persistent focus of environmental studies on the process of acculturation implicitly recognizes the identity re-negotiation that occurs within migrant communities. However, the focus on acculturation only acknowledges one facet of this identity re-negotiation that shapes environmental concern (Kelly & Lusis, 2006).

Resultantly, there is no inquiry or exploration into how sustained ties to the homeland may shape environmental conceptions and concerns beyond the local or national places that migrant communities are presently in. That is, current environmental studies that include migrant communities neglect the potential for a transnational or translocal environment, and resultant transnational or translocal environmental concerns, beyond the local and national environments that migrant communities are physically present in. The studies also neglect the importance of how continued social ties with communities from their place of origin may shape environmental

concern and conceptions, beyond acculturation. Centering acculturation has centered the losses experienced by migrant communities during this process of migration (Chapman & Beagan, 2013). However, by neglecting transnational gains, studies also reduce migrant communities' realities. Through my study, I begin engaging with the complex realities of migrant communities, beyond the linear ideal of the migration trajectory. I theorize that environmental concern and conceptions of environment are shaped by transnational or translocal realities. In doing so, I draw from personal experiences, my informal education as a member of a racialized migrant community, non-academic literature as well as academic literature.

This study contributes to the recent and very limited body of literature that has started to link migration literature with environmental studies literature on environmental concern. Carter et al. (2013) explicitly recognizes the importance of drawing from these two fields of study for understanding and contextualizing environmental conceptions, concerns, and actions in Latinx communities in the US. However, Carter et al. (2013) does not push beyond concepts of acculturation or the limited local or national environments. Other studies, such as those mentioned previously, draw from migration studies, but do not discuss the explicit importance of this field of study.

Studies tying in diaspora studies with environmental studies are even more limited. A scopus database search, using the query "diaspora" AND "environment", was performed. Most studies were not relevant, as they did not discuss environment in the context of environmental action. Though, Pariyadath & Shadaan (2014) discuss the case of students from the Indian diaspora participating in transnational environmental justice activism. Pariyadath & Shadaan's (2014) study demonstrates that environmental concern and ensuing action may not be constrained to the diaspora's present physical environment. The case of diaspora activism following the disaster in Bhopal also challenges the global-local dichotomy. Global-scale environmental problems are typically rendered to be concerns held by white people, while marginalized communities' concerns are typically thought of as being limited to their local environments. The concept of transnational or translocal environments complicates the rigid spatial ideas of 'environment.' Environments, as understood in the context of transnationalism or

translocalism, are not constrained by borders. Rather, they are dependent on the identities of the collective and the individual.

Entering the query 'environment AND "transnational identity"' into the scopus database, 17 results were generated. Most articles discussed the cultural and social environments and negotiations of identity, with no or little discussion of the physical environment (ex. Kebede, 2017; Marino, 2015; Stock, 2016). Two articles discussed the implications of place on identity (Chapman, 2013; Powell & Rishbeth, 2012). Chapman & Beagan (2013) explain transcultural realities that are shaped by place, where there is a continued identity construction in the destination. This article discusses hybridization and homeland attachment through food, finding that identity reconstruction also involves food changing food practices within families. Notably, families hybridized food practices as negotiations of homeland and present land. Drawing from this analysis to the context of environmental concern and conception, might migrant communities' conceptions of environment and environmental concerns take a similar shape? Whereby, environmental conceptions and concerns are transnational or translocal?

Discussions of transnationalism typically center around the fluidity of space, but in the process of migration, the change of place occurs over time. With different places, and thus, environments, that are associated with different phases of life, in considering transnationalism, we also need to consider the fluidity of time (Gardner & Mand, 2012). Space and time are made fluid through acts of individual and collective remembering with "memories of past environments [being] mobile and transportable" (Tolia-Kelly, 2004). There is a consistent process of return to the homeland in the form of political activism, memories, stories, food, dance, music, relatives, phone calls, pictures, and so forth.

Summary

This study seeks not only to start addressing some of the above-mentioned gaps:

(1) Developing in-depth studies on specific Asian communities –racialized migrant groups--, while recognizing their social, political, historical, economic, and cultural contexts.

(2) Considering migrant communities as transnational communities with ties to the place of origin

I pursue this study as a member of the racialized migrant community that I will be exploring. This research is meant to serve as a foundation informing further research and action that can be pursued to (1) develop grassroots environmental organizing within Montréal's Ilankai Tamil community (2) address systemic exclusion of racialized migrant communities in environmental participation and decision-making in Montréal (3) and national, international, and transnational-level discussions (4) shift the focus of literature and practice on racialized migrant communities to consider environmental concerns, conceptions, and actions in wider, more complex contexts that recognize transnationalism and translocalism.

3. Conceptual and theoretical framework

The following summarizes the most essential points from the literature review. Through this process, I develop a conceptual and theoretical framework, used to organize the main ideas and direct the research. The relationships between these ideas and the community in question are explicitly and concisely drawn out here. Environments and environmental issues are framed differently, depending on the communities in question. The framings are dependent on locations of environments, types of environments, and types of environmental issues. What are then the framings of environment and environmental issues for racialized migrant communities? First, I will start with a discussion on the importance of the 'who cares about what' question. Then, I discuss the locations and types of environments and environmental issues that may be of concern for racialized communities. Last, I discuss the locations environments and environmental issues in the context of migrant communities.

Guiding this research is not the question of who cares about the environment or who cares more. The focus of most environmental concern studies on racialized migrant communities are centered on these above questions. Research and the environmental justice movement demonstrate that racialized migrants do care about environments. This calls into question the assumptions that racialized migrant communities do not care about the environment, based off Maslow's hierarchy of needs. The focus of my research is on the question of "who cares about what?" By considering the 'who,' I attempt to recognize the specific racialized migrant community's social, historical, political, economic, cultural, and geographic contexts. I then ask: "what are these communities concerned about?"

The environmental justice movement and literature on racialized communities and environmental concern discuss the main concerns of these communities. These concerns tend to be in line with environmental deprivation theory. Concerns are focused on social issues, mainly related to health. The issues and environments of main importance are local, and more specifically, neighbourhood, built environments. This is in contrast to environmental concerns in the mainstream movement. These latter concerns tend to be separate from social issues, on a larger scale, and often global in scope. The global scope often results in a framing of issues in an

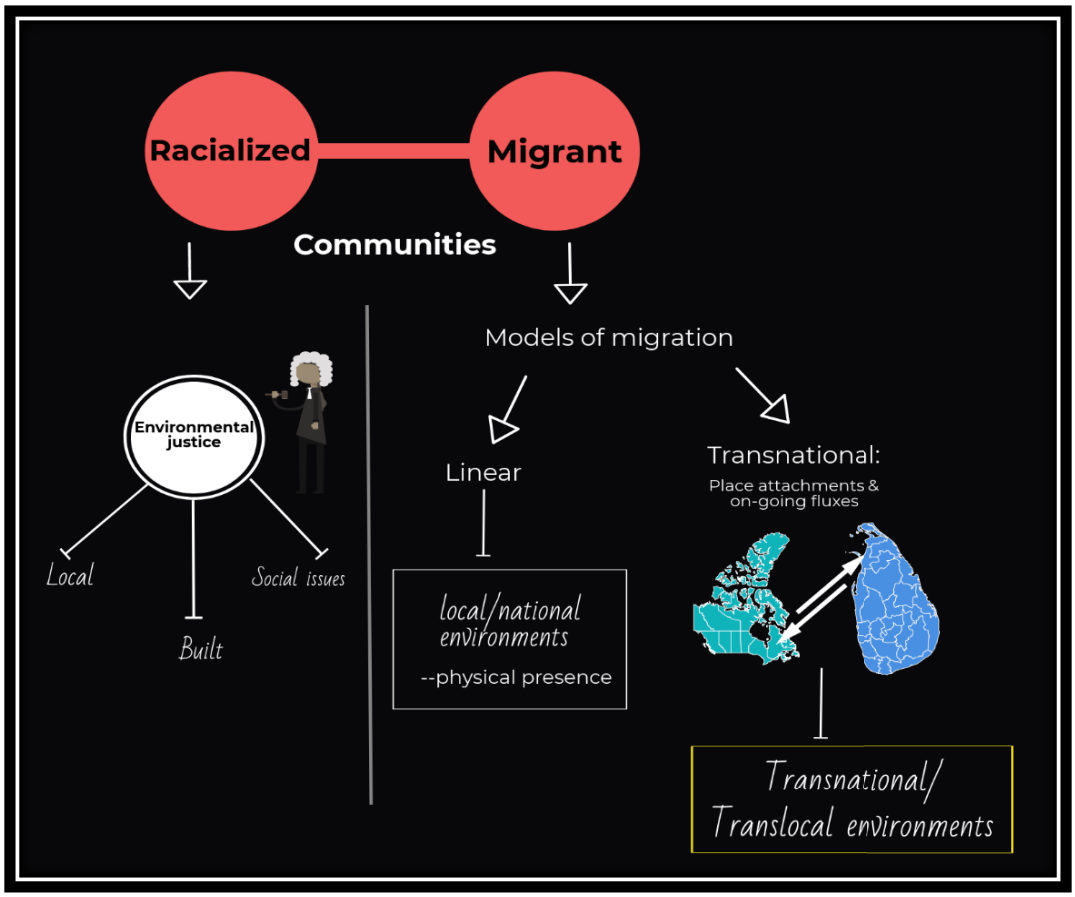
impersonal way. These are the main types of environmental issues and environments that have emerged through the research.

The focus of the environmental justice movement has mainly been on race and income. Few existing studies consider the migration contexts of racialized migrant communities. Race and income are important for considering environmental concern and allowed us to identify local, built, health environmental issues as important to inquire about for racialized migrant communities. However, there is a lack of focus on migrant communities. Firstly, there is a lack of focus on the actual migration component. Few studies consider environmental concerns of migrant communities. In the studies that do, if the migration trajectory is considered, it is considered to be linear. There are two main foci in these studies: (1) how acculturation shapes environmental concern and (2) environments of concern are by default limited to local or national environments in which the communities are physically present.

Many non-environment studies, mainly in the transnational and diaspora studies fields, recognize that migration is not a linear process. Identities of migrant communities are shaped by transnational and translocal belongings. I theorize that in line with migrant communities' identities, environmental issues and environments of concern extend beyond the locations where the communities are physically present. In this study, I contextualize the community in its larger transnational and translocal context. While the emerging environmental locations of concern in the literature have been confined by state-defined or municipally-defined borders, I propose that for migrant communities, we should also be inquiring about transnational/translocal places when we are situating the environmental problems.

Briefly, following the studies on racialized communities and environmental concern, I focus my inquiry and framing on the health issues in local, built environments. I also inquire about issues and environments that are typically considered to be mainstream. Furthermore, I situate migrant communities in their transnational and translocal contexts. In doing so, I inquire into places the community is tied to as a result of their migration trajectory. The diagram below represents the conceptual and theoretical factors guiding this study.

This leads us to our more specific question of: what types of environmental issues and environments, including the question of 'where.' The types of issues can be framed as a social issue (ex. health inequities), a social-environmental, or a purely environmental. Types of environments include the built and natural environments. While this dichotomy can be reductionist, I use it while acknowledging that that there is a spectrum in reality. However, for the purpose of this research, I use the dichotomy to discuss the research and results in the context of the existing literature. The where factor in the types of environments includes geographic scale (neighbourhood/local, national, global). This also includes considering whether the environments being considered are locations where people are physically present or not (transnational or translocal environments).



4. Background: Ilankai Tamil community in Montréal

The roots of the Ilankai Tamil community are in Ceylon –also referred to as Ilankai within the community and more commonly known as Sri Lanka. Tamils are a minority in Sri Lanka, with most living in the north and east. Many people in the Ceylon's north and east rely on fishing and agriculture for their livelihood. The island and its people endured a 26-year long civil war, tied to its history of European colonialism. While the war is officially said to last from 1983 to 2009, the conflict extends beyond these timeframes. Regions of the country with majority Tamils were most affected by the violence. The war caused many forced migrations, with people seeking asylum in different countries (Amnesty International, 2008). Families were dispersed to different areas of the globe, resulting in a large Ilankai Tamil diaspora spanning through India, Australia, Canada, and countries in Europe (George, 2011).

Based on the 2016 Canadian census, Toronto has by far the highest number of Ilankai Tamils, with roughly 103 000. Montréal is the Canadian city with the second largest number of Ilankai Tamils: roughly 13 000 (Statistics Canada, 2018). The Canadian Ilankai Tamil population is largely made up of first-generation immigrants, people who migrated from Ceylon, many of whom during the war, and second-generation immigrants. While most second-generation Ilankai Tamils did not experience the war, many stories of war and of 'home' are passed on to them.

During the time of war, Ilankai Tamils of the diaspora, including in Toronto and Montréal organized and mobilized against the violence. Protests were often held, with an aim of reaching out to the wider city population and the Canadian government to intervene in Ceylon (Walton, 2015). Many were also advocating for a separate Tamil homeland in Ceylon. While the war is officially over, there continue to be events in remembrance of people who lost their lives due to the violence. In the past protests and present-day acts of remembrance, while often led by first-generation Ilankai Tamils in Canada, there is still extensive involvement by second-generation Ilankai Tamils (Hess & Korf, 2014). While physically separate from Ceylon and people in Ceylon, people of the diaspora maintain relationships with their homeland. For instance, through phone or video calls, remittances, support of religious institutions in home villages/towns, travels back

to Ceylon, sponsorships, and cooking practices, people maintain their relationships with the homeland.

In Montréal, the highest number of Ilankai Tamils live in the coloured census tracts found in **Figure 4-1** (Simply Analytics, 2017). It should be noted that this data is from the 2011 census, though it is likely that patterns have not shifted significantly since then. These census tracts are found in the neighbourhoods of Parc-Extension, Côte-des-Neiges, Ville Saint-Laurent, and Dollard-des-Ormeaux. Neighbourhoods, in this case, loosely refer to official city boroughs. It is also in these areas where there are higher numbers of religious institutions led and attended by Ilankai Tamils, Ilankai Tamil grocery stores, and Tamil language and music classes. In addition, there are other formal and informal spaces where members of the community gather. The median household income of Ilankai Tamils in Montréal is about $61 800, about $16 700 below the median income for the total population in Montréal. In Parc-Extension and the Côte-des-Neiges areas where Ilankai Tamils are mostly located, median household incomes are around $55 000 and $50 000, respectively. In Dollard-des-Ormeaux and Ville Saint-Laurent, where there are high numbers of Ilankai Tamils, but to a lesser degree than the former two neighbourhoods, median household incomes are around $77 000 and $70 000, respectively (Statistics Canada, 2018).

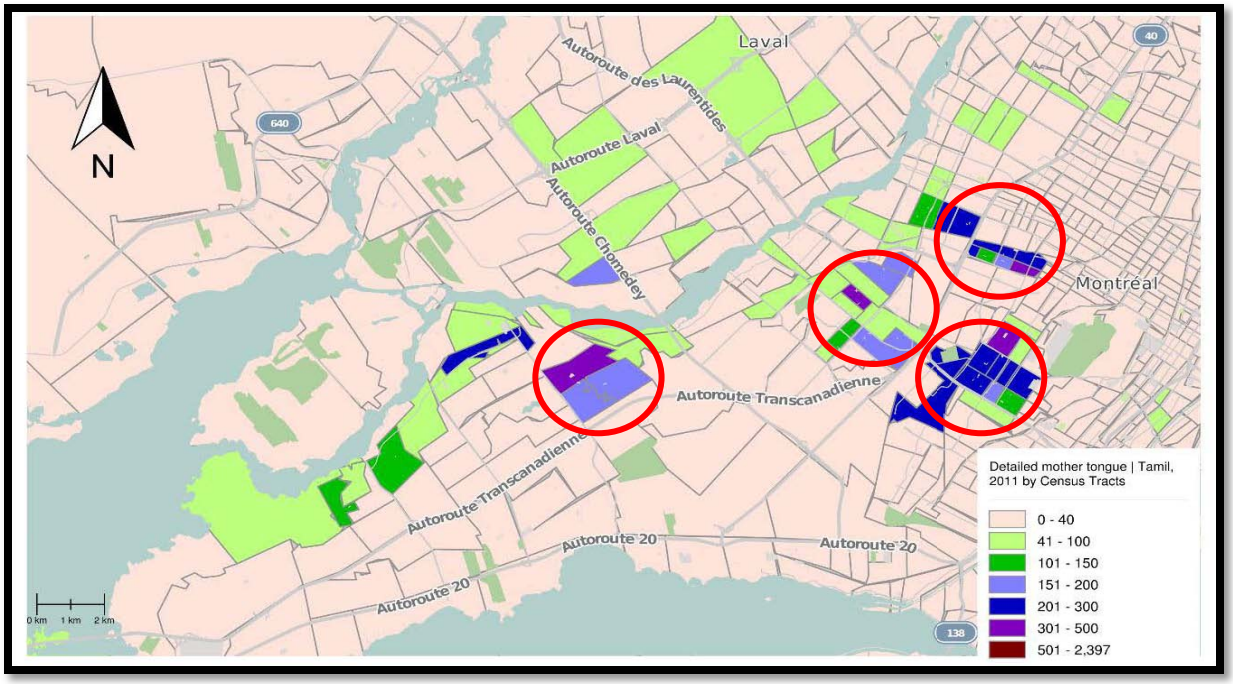


Figure 4-1: Montréal census tracts with the highest numbers of Ilankai Tamils. The circle on the far left demonstrates Dollard-des-Ormeaux. The top center circle represents Ville Saint-Laurent. The bottom center circle represents Côte-des-Neiges. The circle on the far right represents Parc-Extension.

5. Methodology & Methods

The methodology and corresponding methods in this study aimed to explore the (1) environmental concerns and (2) understandings of environment in the Ilankai Tamil community in Montréal. Following the conceptual framework, the process of inquiry contextualizes the questions in racial and migration contexts. Environmental concerns and environmental understandings in Montréal's Ilankai Tamil community had not been systematically studies, whether formally or informally. Informal conversations about the environment typically refer specifically to the issue or topic, such as health, weather, and land in Sri Lanka. In essence, 'environment' is not a popular topic of conversation, unless under different names. Using questionnaires that collect both qualitative and quantitative data (mixed methods), my goal was to reach a large sample, while also approaching the data collection in a partially exploratory nature.

5.1 Methodology

Through a questionnaire, I collected primarily quantitative data, with some qualitative. This approach models Mohai & Bryant (1998), who used quantitative data to inform the qualitative data generated from open-ended questions. In my study, qualitative questions approached the inquiry process through a more exploratory approach, while quantitative questions took a close-ended approach. These latter questions provided insight on relative concern for different environmental issues and environments, which we could then compare. A second source of data is also used in this study: conversations that occurred with participants before, during, and after the questionnaire.

5.2 Questionnaire design

There were four main sections in this questionnaire: (a) broad environment-related questions, (b) location-specific questions, (c) questions about the local built environment, and lastly, (d) demographic questions. These sections were drawn in part from Mohai & Bryant's (1998) study. The topics covered in the story and the framing of questions addressed a gap in the current literature. Studies on racialized migrant communities, with their focus on comparison, often

neglect to tailor questionnaires and frame questions with recognition of racialized migration contexts of the communities. Therefore, I attempt to acknowledge and inquire into environmental concerns and understandings while considering the community's social, political, geographic, and cultural contexts.

In section (a), the first two questions were open-ended and inquired directly about research questions (1) and (2). As a university student majoring in Environment, I have been exposed to environmental discussions and movements that are part of the mainstream, referred to in the literature review. In large part, the faculty and student body do not identify as being from a racialized migrant community. While a member of the Ilankai Tamil community but also as a university student in an academic institution with mainly mainstream framings of environment and environmental concern, I attempted to minimize my own perceptions of environment and environmental issues through these open-ended questions. The following questions inquired about a common mainstream environmental issue: climate change and framed accordingly, in a manner that was not tailored to the community's racialized and migration contexts. The reasoning behind this was to explore the assumption held by many mainstream environmental groups that racialized communities are disinterested or apathetic to issues of climate change. The question also aimed to provide more insight into the level of concern of this racialized community toward climate change, given that the focus of the literature on racialized communities is mainly on local, built environments, with an assumption that global environmental problems are not as relevant for racialized communities.

The next section, (b), inquired into different spatial locations and scales of environments as well as different types of environmental issues. Tailoring the questions to the Ilankai Tamil community in Montréal, the questions inquired into environmental concerns related to Canada and Ceylon, as well as Montréal and village/town/city in Ceylon. Additionally, this section also inquired into issues relating to the loss of plants and animals and issues relating to climate change. However, these issues were contextualized, and not left as general 'loss of plants/animals' or 'climate change' issues. Issues were presented in situations, made relevant for the Ilankai Tamil community, as done by Whittaker et al. (2005) and Day (2006).

Section (c) was focused on the built environment, in-line with the literature on environmental concerns of racialized communities. While most questions focused on the Montréal environment, some also centered on local environments of relevance in Ceylon, relating to the transnational identity of the community. The section started with a free-list question, where people listed parts of their local environments that should be improved. This question was open-ended to provide more space for participants to express possibilities that I would not have considered. The following questions were on pollution of air or ware in Montréal or Ceylon local environments. As discussed by Mohai & Bryant (1998) and Whittaker et al. (2005), at the focus of many environmental concerns in racialized communities are public health inequities due to pollution. Additionally, a Likert scale from very good to very bad was used, modelling Simone et al.'s (2012) study on air quality perceptions of Hamilton residents. However, Simone et al. (2012) used a scale of excellent/very good, good, and fair/poor. The questions that followed explored neighbourhood and housing-related issues. Masuda et al. (2012) mentions that urban residents' main environmental concerns in Canada tend to relate to housing, green spaces, and transport services, which I cover in this section.

Finally, the last section consisted of demographic questions, including questions about age, gender, current neighbourhood of residence in Montréal. Other questions were more particular to the community, asking them to name the Ceylon village/town/city they considered during the study. Another question asked about year of arrival to Canada for first-generation immigrants. Questions about frequency of use of the term 'environment' and participation in an environmental organization were also included in this section. The two main languages spoken in the community are Tamil and English. Translation of the survey into Tamil was crucial to reach more community members, especially those who migrated to Canada later in their life. Following ethics approval, I started sampling.

5.3 Sampling

Included in the sample were people aged 18 years and up, self-identifying as Ceylon/Sri Lankan/Ilankai Tamil, and living in the Montréal census metropolitan area. People who were unable to provide informed consent and visitors to Montréal were excluded from the study.

Convenience sampling was the main sampling method. As someone who is part of Montréal's Ilankai Tamil community I firstly reached into my own immediate networks and then extended the questionnaire to networks of people whom I knew. Therefore, the questionnaire was circulated to family members' friends, friends' friends, and friends' families. Additionally, participant responses were also obtained through random sampling in neighbourhoods and areas with higher numbers of Ilankai Tamils. The proportion of participants obtained through random sampling was less than those obtained through social networks. Random sampling consisted of approaching people in gathering places common for Ilankai Tamils, such as music classes, churches, and temples. Questionnaires were distributed in person and via web.

Guiding the sampling process was the goal of collecting 30 surveys of youth (age 18-30), 30 of adults' (age 31-64), and 16 of older adults' (age 65+). For youth, I mainly relied on my own networks and networks of friends and family in my age group. Web-based and in-person-based questionnaire distribution were given equal weight. For adults, primarily in-person sampling was used. For older adults, the main reliance was through extended social networks, because older adults in the community are more difficult to reach, particularly in the winter time, when data collection took place. In each age group, the aim was also to collect equal numbers of questionnaires from people identifying as a man and as a woman. Additionally, since the highest number of Ilankai Tamils are located in the Côte-des-Neiges, Parc-Extension, Dollard-des-Ormeaux, and Ville Saint-Laurent areas, the aim was to focus outreach efforts in these areas, both through convenience and random sampling.

5.4 Analysis

Following data collection, free-list question responses were translated from Tamil to English. All data were then entered into a Microsoft Access database 2016 file and surveyed to detect potential abnormalities of concern in the results. Data were then imported into Microsoft Excel 2016. Using excel, data were visually represented through bar graphs and pie charts, presenting proportions. To analyze the qualitative data, I first grouped and coded answers that appeared a minimum of three times into descriptive categories. Since each person had the option to write up to three answers, responses by one person falling into the same category were counted

only once. Results were aggregated, and the top six categories of responses were considered during the interpretation of results. For close-ended, quantitative questions, responses were aggregated to the community level as well. Community responses to individual questions were interpreted. Additionally, comparisons were also made between questions inquiring into different locations, geographic scales, and issue types. Variations and similarities in answers provided by youth and adults/older adults were analyzed and interpreted. Finally, conversations that took place during data collection were used to interpret and inform the questionnaire results.

6. Results

6.1 Demographics

A total of 103 people participated in the study. The following describes the demographic characteristics of the sample in this study. **Figure 6-1** demonstrates the age distribution in the sample, consisting of youth, adults, and older adults. 28 of the 43 youth were born in Canada and 40 out of 43 youth did their primary schooling in Canada. In the adult group, all were born in Ceylon, though 1 person did not answer. All adults also did their primary school education in Ceylon, though 2 people did not answer the question. All older adults were also born in Ceylon and did their primary school education there as well. The most common reason for migration was war, with 45 people listing this as the sole or one of the only reasons. Since age categories have particular non-/migration characteristics, we consider the different age groups to reflect different cohorts.

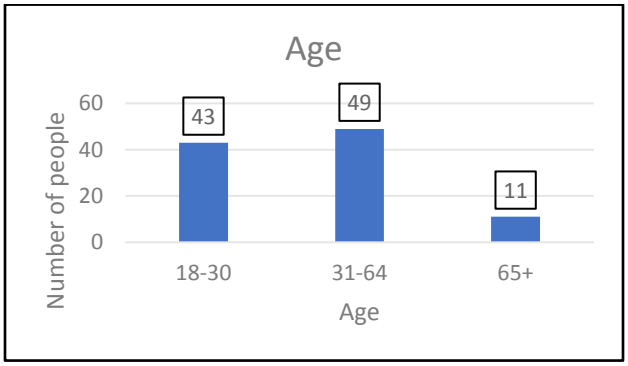


Figure 6-1: 18-30-year olds are referred to as youth. 31-64-year olds are referred to as adults. People 65 years and older are referred to as older adults. Adults are in the highest number, then youth, and finally older adults. All participants answered this question.

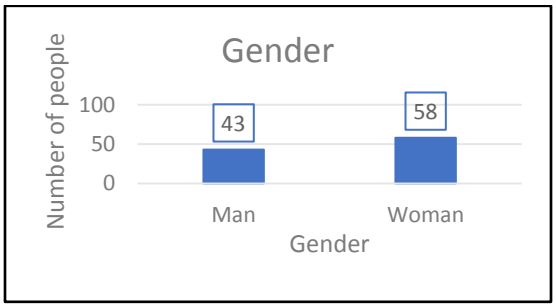


Figure 6-2: There are more women than men. 1 person who did not answer the question.

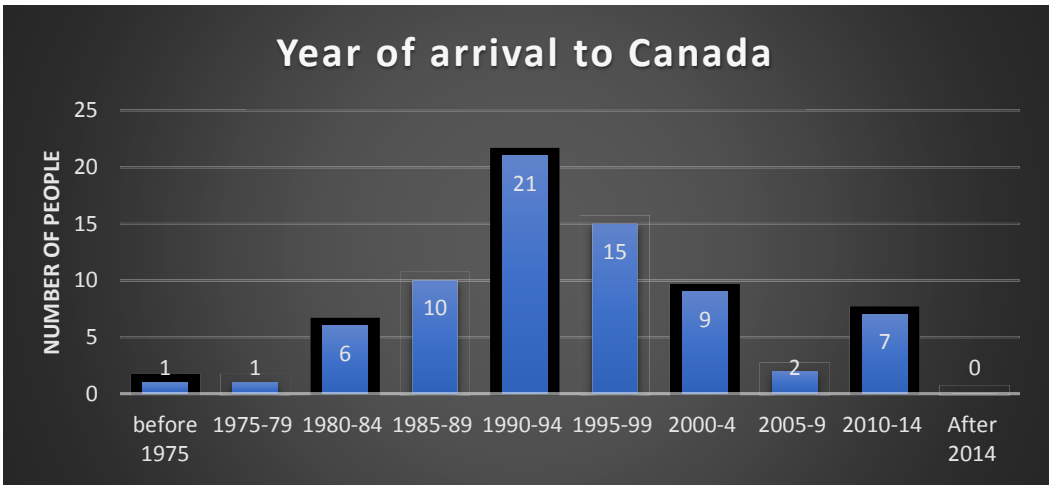


Figure 6-3: Most first-generation Ilankai Tamil immigrants arrived in Canada during the war. The highest number of people arrived during the 1990-1994 period, when rates of migration from Ceylon to Canada were highest. This question was not applicable for 28 people. 3 people did not answer the question.

Figure 6-4: Ceylon village/town/city that people were considering when answering the survey questions. Jaffna and Yalpanam are the same place and signify the northern-most province. Yalpanam is the Tamil name for Jaffna. Jaffna appeared 28 times in the answers while Yalpanam appeared 13 times. Other places were mentioned 6 times or less, with most being named once or twice. 7 people left the question unanswered.

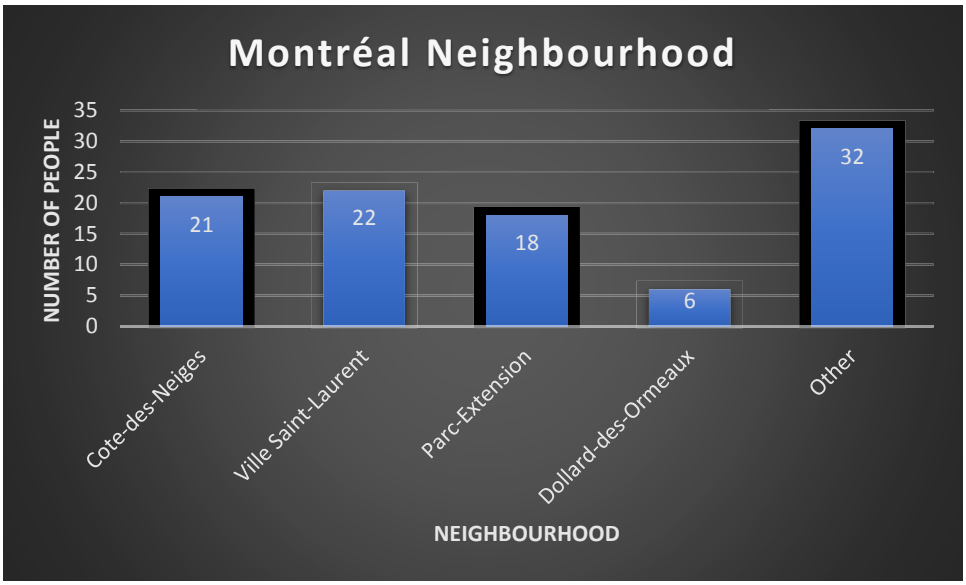


Figure 6-5: The neighbourhoods with the highest number of respondents were Côte-des-Neiges, Ville Saint-Laurent, and Parc-Extension. This corresponds to the larger Ilankai Tamil community in Montréal, where most people are from these neighbourhoods. There were only 6 respondents from Dollard-des-Ormeaux. 4 people did not answer.

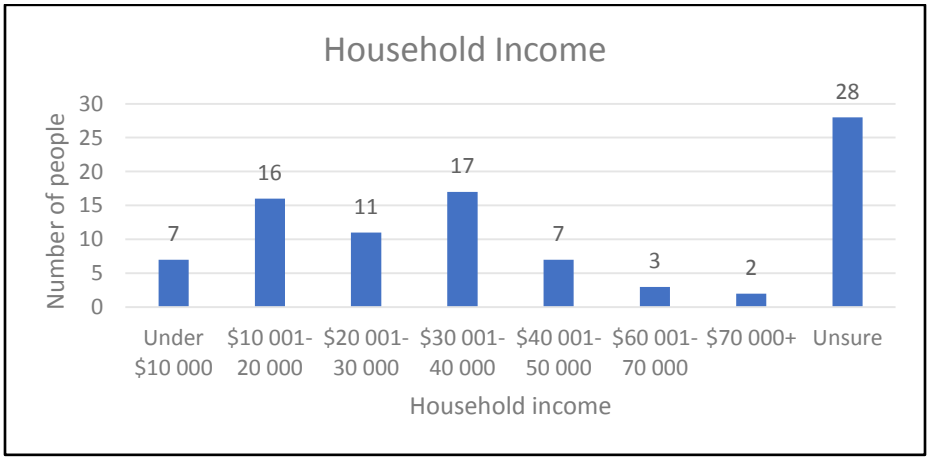


Figure 6-6: Most people responded as having less than $40 000 household incomes. 12 people did not answer the question.

6.2 Questionnaire results

The first question inquiring about the three things that the participant thinks about upon seeing the word 'environment,' six major response categories were apparent. Air & air quality and waste management were the topics that appeared most often, with 32 participants listing responses in each of these categories. Then came the natural environment and pollution, each with 24 responses. Climate change & weather and social environment each had 21 responses (**Figure 6-1**). The two most common responses in the youth group were natural environment (24 responses) and pollution (15 responses). On the other hand, among adults, the most common responses were air & air quality (22 responses) and waste management (20 responses). Finally, in the older adults who responded, most common were the social environment (5 responses) and waste management (5 responses). In total, there were 6 people who did not respond to the question: 5 of whom were adults and one of whom was an older adult.

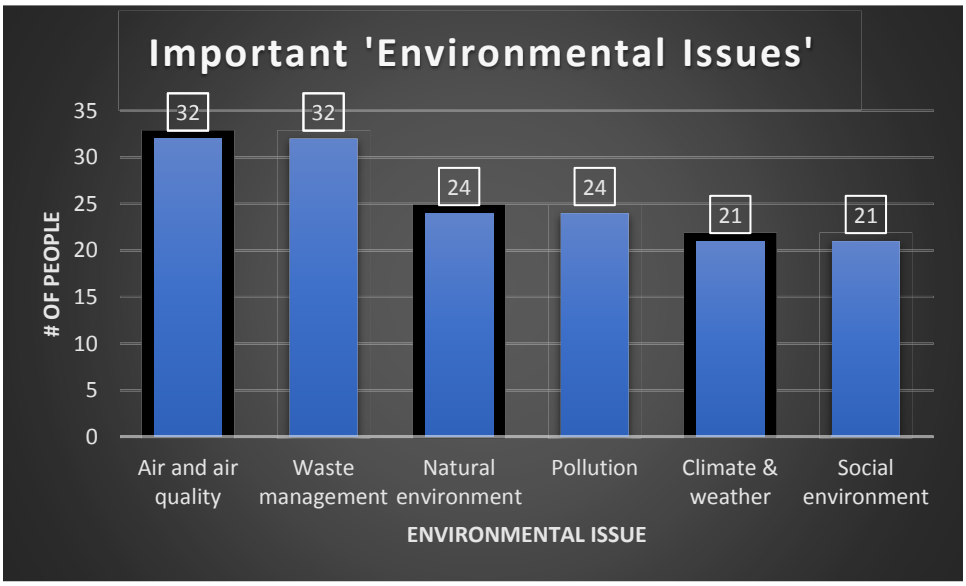


Figure 6-1: Most common environmental issue categories listed by participants.

In the free-list question on environmental issues, six main categories of responses emerged. Pollution was by far the issue that was most mentioned, with 81 participants listing this. Weather & climate came in second, with 45 respondents. Issues related to the urban environment appeared 30 in responses from 30 participants, whereas 25 participants noted social environment

issues. 16 participants wrote waste-related answers, and finally, 14 participants wrote loss of plants and/or animals Air & air quality and waste management were the issues that appeared most often, with 32 participants. In all three cohorts, pollution was listed most often: youth -43 participants, adults -33 participants, and older adults -5 participants. In the youth group, weather & climate also had a significant number of responses (26 participants). Urban environment was the category that came up often for adults (19 participants) and older adults (5 participants) as well. In total, there were 9 people who did not respond to the question: 6 of whom were adults and 3 of whom was an older adult.

When asked about the global climate change problem, 91 people responded that they had heard of the problem on the news, with only 4 people responding that they had not. In total, 8 people left the question unanswered. In the youth group, out of the 41 people who answered, only 4 youth had not heard of global climate change in the news. In the adult group, out of the 45 who answered, all said they had heard of the problem in the news. In the 9 older adults who answered, all 9 answered they had heard as well. Using a Likert scale where 1 meant not a problem and 5, a huge problem, 65 participants indicated that global climate change was a huge problem. Only 8 people responded with "not a problem" (**Figure 6-2**). In total, 7 people left the question unanswered.

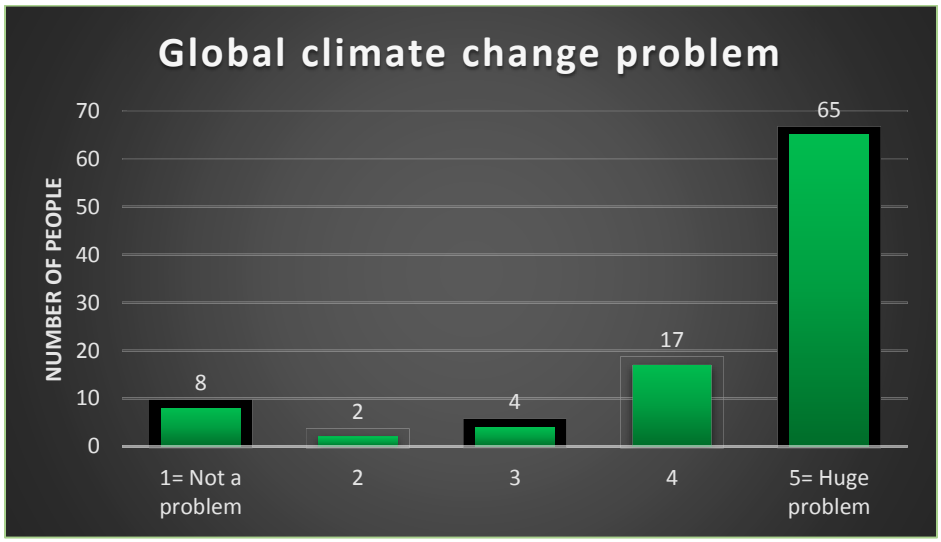


Figure 6-2: Ratings of global climate change as a problem or not where 5 meant a huge problem and 1, not a problem.

When we asked participants whether they included Ceylon environments in the environments that mattered to them, out of the 97 people who answered, 79 said yes and 15 said no (**Figure 6-3**). Of the 15 participants who responded 'no', 13 were part of the youth cohort.

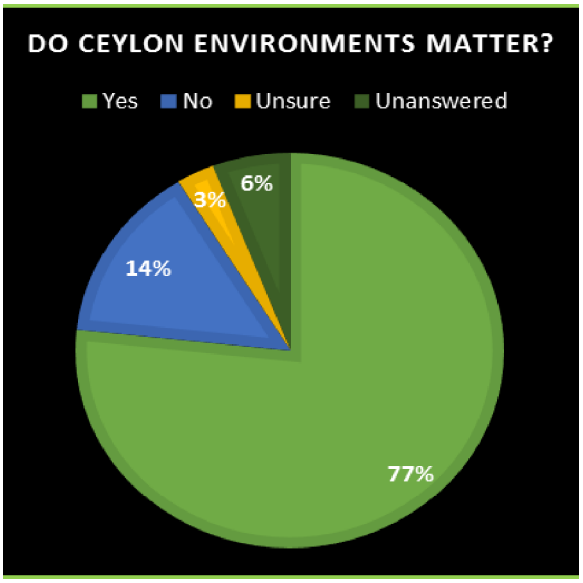


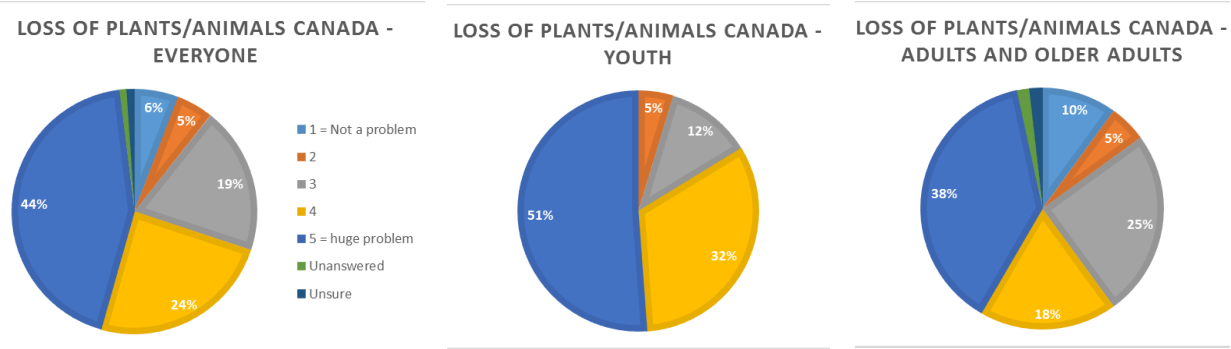
Figure 6-3: Considerations of whether Ceylon environments matter to participants.

Table 6-1 depicts the results obtained in the series of questions on situational environmental issues in specific locations that relate to the migration trajectories in the community. 23 participants rate the loss of plants and animals due to urbanization in Canada as a huge problem. Additionally, 6 people feel that this is not a problem. For the same situation in Ceylon, 55 people rate the problem as huge and 6 people feel it is not a problem. For the situation of increased floods and droughts in Canada, 26 people felt it was a huge problem, whereas 9 people felt it was not a problem. Comparatively, for the same problem in Ceylon, 4 people responded that it was not a problem, while 60 people felt it was a huge problem. When it came to the potential future increased seriousness of floods and droughts in Montréal, 30 people felt it was a huge problem and 8 people felt it was not a problem. When it came to the same issue, but in the person's Ceylon hometown, 47 people felt it to be a huge problem and 3 people felt it was not a problem at all. Response rates were high for all questions.

Table 6-1: Responses for questions on situational environmental issues in Canadian and Ceylon locations.

	Problem rating						
	1 = not a problem	2	3	4	5 = huge problem	Unsure	Unanswered
Loss of plants and animals - Canada	6	3	15	11	23	1	1
Loss of plants and animals - Ceylon	6	1	14	24	55	2	1
Present increase in frequency and severity of floods and droughts -Canada	9	15	25	19	26	6	3
Present increase in frequency and severity of floods and droughts -Ceylon	4	5	7	21	60	3	3
Future potential increased seriousness of flood and droughts -Montréal	8	14	16	24	30	9	2
Future potential increased seriousness of flood and droughts -Ceylon hometown	3	7	9	31	47	5	1

We also found that responses varied between cohorts. 44% of youth rated the loss of plants and animals in Canada as, whereas 38% of adults/older adults rated this as a huge problem as seen in **Figures 6-4 – 6-6**. For the same situation in Ceylon, 65% of adults/older adults rated the problem as huge, whereas 37% of youth rated the problem as huge. For the situation with the increased severity and frequency of droughts and floods in Canada, 25% of both youth and adults/older adults rated the problem to be of huge. For the same situation in Ceylon, 65% of adults/older adults and 49% of youth felt it was a huge problem. When it came to the future potential increase in seriousness in floods and droughts in Montréal, 33% of youth and 27% of adults/older adults felt this to be a huge problem. However, for Ceylon hometowns, 46% of youth and 45% of adults/older adults felt this was a huge problem.



Figures 6-4 – 6-6: The proportional responses of participants (a) overall, (b) in the youth cohort, and (c) in the adult/older adult cohort for the situation of urbanization-caused plant and animal losses in Canada.

In the final free-list question asking participants to list aspects of the Montréal environment that could be improved to better their family, the top three results were improved cleanliness (38 participants), decrease driving (35 participants), and increase plants and greenspace (34 participants). In total, 10 participants left the question unanswered: 2 youth, 6 adults, and 2 older adults. The top answer in the youth (15 participants) and older adult (6 participants) cohorts was decrease driving, while this was the second-most common answer in the adult cohort (20 participants). The most common answer in the adult cohort was improved cleanliness (27 participants). The second-most common answer among youth was increased plants and greenspace (14 participants).

Figures 6-7 – 6-10 demonstrate the results for the series of questions on the quality of air and water in Montréal and Ceylon hometown environments. The air quality in Montréal was rated as having both good and bad air. There were 3 people who responded with unsure and 3 people who did not answer the question. The air quality in people's Ceylon hometown was dispersed, with the highest responses being "very good," "neutral," and "bad." For this question, 9 people were unsure and 2 people left it unanswered. The water quality in Montréal, received mainly ratings of "very good" and "neutral." Ceylon hometowns' water quality ratings were mostly "neutral" and "bad." For water quality in Montréal, 3 people were unsure, whereas 10 people were unsure for the case of their Ceylon hometown. For both questions on water quality, 3 people left

each question unanswered. Looking at cohort response distributions, we see that 33% of youth say there is “very bad” or “bad” air quality in Montréal and 39% say “neutral.” 21% of Adults and older adults, whose responses were combined, say there is “very bad” or “bad” air quality and 48% say neutral. 45% of adults and older adults say there is “very good” or “good” water quality in their Ceylon hometowns. Related to this, 25% of participants felt there is a problem of agricultural pesticides in their Montréal water. On the other hand, 56% of participants felt there is a problem of agricultural pesticides in their Ceylon hometown water. For both questions, 5 participants did not answer.

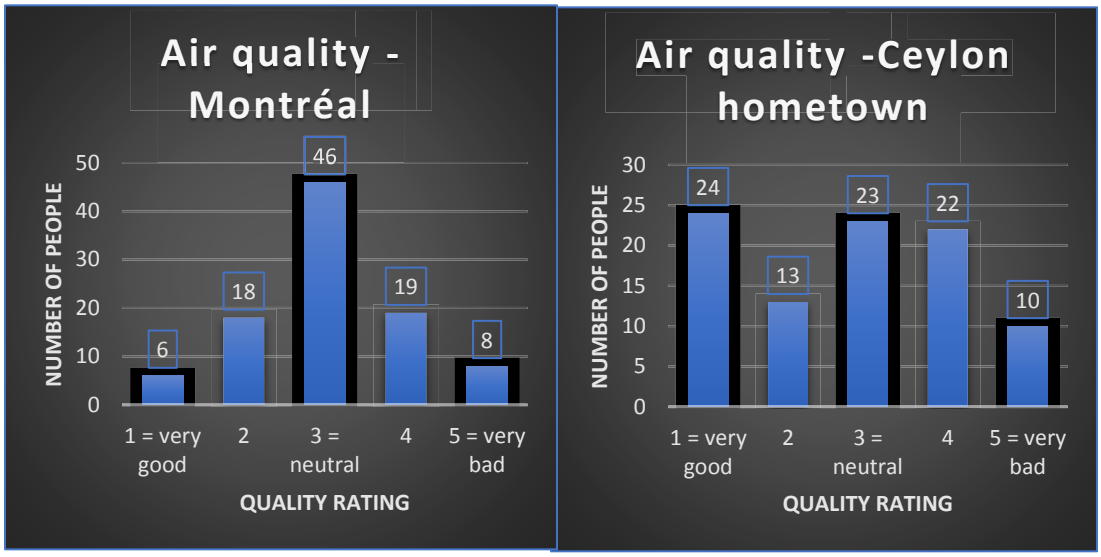


Figure 6-7: Air quality ratings for Montréal. Most participants rated the air as having both bad and good qualities. The rest of the responses, rating the quality as good or bad, are distributed about evenly.

Figure 6-8: Air quality ratings for Ceylon. Most common responses are very good, neutral (bad and good), and bad.

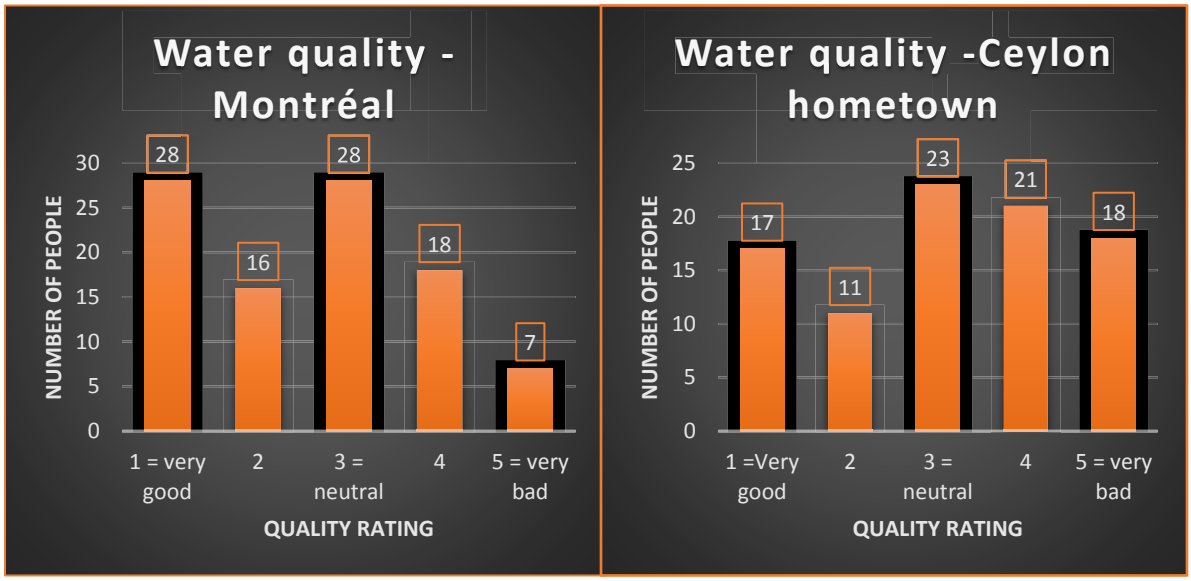
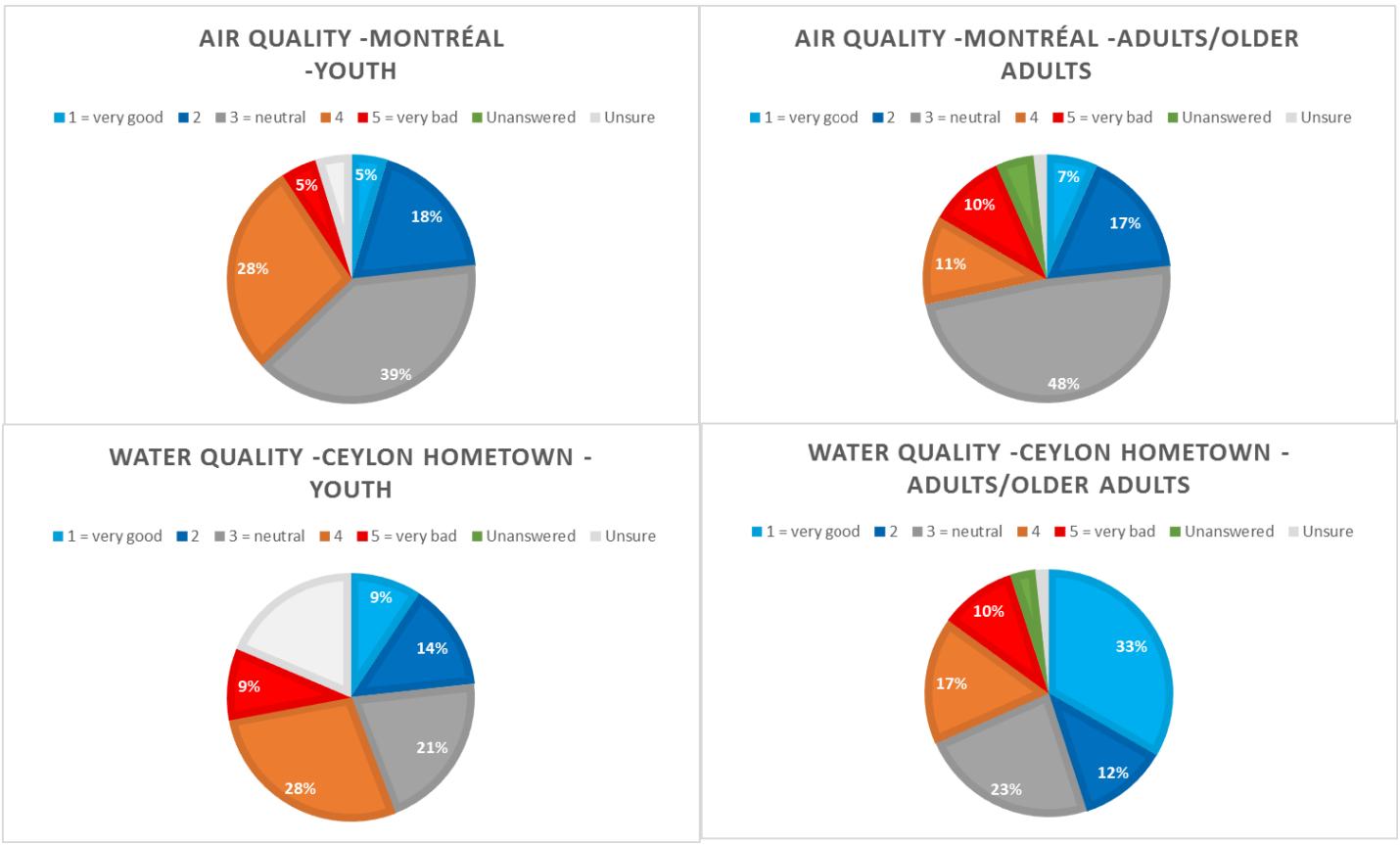


Figure 6-9: Water quality ratings for Montréal. Most participants rated the water as being very good or neutral (bad and good).

Figure 6-10: Air quality ratings for Ceylon. Most common responses are neutral (bad and good), and bad. There are also many ratings of 'very bad' and 'very good'.



Figures 6-11 – 6-14: Distributions of air and water quality ratings in Montréal and Ceylon hometowns based on age cohorts.

Table 6-2 shows the results for the series of questions on the built environment. The high level of traffic and cars in participants' neighbourhoods was the most concerning, with three quarters of participants feeling it was a problem. Next was crowding in the neighbourhood. About a quarter of participants indicated that there was a bedbug problem in their neighbourhood, while less than a quarter said there was a mould problem in their home. Over three quarters stated that there is enough space in their home for their family and over a quarter also stated they felt safe in their neighbourhoods. Over 90 participants said they had good access to public parks. Lastly, only 7 people stated they did not have good public transportation in their neighbourhood.

Table 6-2: Questions on the built environment

	Yes	No	Unanswered
Is your neighbourhood too crowded with people?	65	35	3
Is there a lot of traffic/cars in your neighbourhood?	77	24	2
Is there a bedbug problem in your home, building, or neighbourhood?	25	76	2
Is there a mould problem in your home?	18	82	3
Do you feel safe in your neighbourhood?	81	17	5
Is there enough space in your home for you and your family?	82	17	4
Is there good public transportation in your neighbourhood?	93	7	3
Do you/your family have good access to public parks?	91	10	2

7. Discussion

Framings of environmental issues and environmental in mainstream environmental movement by mainly white, middle-/upper-class people contributes to the systematic exclusion of racialized migrant communities. This is tied to how social locations, including non-/racialized and non-/migration contexts, shape understandings of environment and the types of issues that affect people. That is, environmental issues and understandings of environment are depend heavily on a community's social location. Communities that are marginalized due to their social location often face a marginalization of their environmental concerns and understandings. The racialized migrant community of focus in this study is Montréal's Ilankai (Sri Lankan) Tamil community. The purpose of this study is to deepen understandings of concerns and environments that are important for the community and consider how the community's transnational identity may potentially shape environmental concern and understandings. The research questions guiding this study are (1) what are the environmental concerns in the community and (2) how do people understand their environments. The discussion is divided into two sections, exploring each of the above questions.

7.1 "Environmental issues"

We find that environmental concerns within Montréal's Ilankai Tamil community are not only present, but also varied and complex. The findings broadly highlight six major areas of concern in the community: pollution, natural environment –weather & climate, built environment, waste management –recycling and composting, natural environment –plants & animals, and lastly, the social environment.

I. Pollution

In the free-list question on environmental issues deemed important by people, pollution and related answers were by far the issue most-mentioned. Of the 93 people who responded, 81 people wrote a pollution-related answer. Answers for this category included pollution being mentioned alone. The high overall mention of pollution relative to other environmental problems may be tied to the "global-local link" (Burningham & Thrush, 2001). Pollution is an environmental problem often mentioned in mainstream environmental discussions (Di Chiro, 2008). Simultaneously, the public health implications of pollution for socially marginalized urban communities has been the focus of multiple mobilizations for environmental justice.

Participants often mentioned pollution in isolation. These responses may have meant pollution on a global, transnational, national, or local level. The population of concern may have been human or more-than-human. Some participants mention plastic pollution in ocean waters by a couple participants. Participants may have meant all of these geographic scales and living communities or a combination of these. Many people also mentioned the type of pollution: plastic, chemical, air, and water. Sources of pollution such as cars and cigarettes also appeared often, mostly in adult and older adult answers. Nearly a third of responses related to air pollution, indicating higher levels of concern in the community for this local level concern, particularly when referring to cars and cigarettes as pollutant emitters. The focus on air pollution is also a recurring environmental topic of concern in the literature for socially marginalized communities (Agyeman, 2001; Masuda et al., 2010; Taylor-Clark et al., 2007). Additionally, when asked to rate the quality of Montréal water and air, overall, people rated water quality as better than air quality. This was similar to findings in Taylor-Clark et al.'s (2007) study on racialized communities and communities

in low socioeconomic positions. The finding of the high number of participants who noted pollution supports Burningham & Thrush's (2001) interpretation on pollution being a widely relatable environmental issue. With the focus on air pollution, we see participants are concerned about the public health impacts of the surrounding environment. This concern about public health is in line with the literature on urban environmental concerns of racialized communities (Agyeman, 2001; Burningham & Thrush, 2001; Buzzelli & Jerrett, 2004; Kershaw et al., 2013; Masuda et al., 2010; Taylor-Clark et al., 2007).

II. Natural environment: Weather & climate

Weather and climate-related responses were the next most common mention in this free-list question, with 45 people noting these responses. Most common listings were global warming, climate change, and snow or cold. As discussed in the literature review, those in mainstream environmental movements often interpret the low representation of racialized migrant communities to be a show of disinterest (Agyeman, 2001; Clarke & Agyeman, 2011; Jafri, 2009). However, in this response we see that global warming and climate change are mentioned quite frequently, more often than snow, indicating the community's concern on the issue. Macias (2016) also found racialized communities were concerned about climate change. However, Macias (2016) did not inquire about weather-specific concerns.

Interestingly, the term 'global warming' was mentioned more frequently than the term 'climate change,' reflecting how the former term is used more in public discourses (Leiserowitz et al., 2014). Schuldt et al. (2011) describe that in public discourse, the terms are used interchangeably to describe an overall trend in global changes in climate, generally towards warming. Though, by definition, the term 'global warming' signifies warming average global temperatures. In academic scientific discourses, the term 'climate change' is mentioned more frequently. Climate change encompasses global warming and other phenomena, such as cooling climates in certain regions and an increased frequency of natural disasters (Schuldt et al., 2011). This latter term has gained popularity in public discourse only in more recent years (Anderegg & Goldsmith, 2014). The more frequent mention of 'global warming' in this study may be tied to information sources of environment, such as the media, in which the term may appear more often

(Leiserowitz et al., 2014). The terms global warming and climate change appeared more often in youth answers. This may be related to how youth in the community rely more on Canadian and English-speaking media, while adults lean toward Tamil-speaking media, where issues of global warming and climate change are mentioned less frequently.

More common in adult and older adult answers were snow and cold, sometimes being tied to ill health. The specific mentions of cold and snow are more related to local-level environments, related to everyday lives, like the findings in the community-based study with Roseland, Chicago's African-American community (ECCo, 2011). While studies such as Macias (2016) focus on climate change, the results in this study show us that other climate-related factors are important for the participants in this study. During the questionnaire, adults and older adults often mentioned the unrelenting cold and snow in Montréal as a main challenge to their daily lives in the winter. The frequent mention of the cold and snow as problematic weather and climate might be tied to adult and older adult climate and weather experiences in Ceylon. Heat, warmth, and rain are the norm in Ceylon, because of its proximity to the equator. The cold is experienced to a far lower degree in Ceylon. Environmental concern for many adults and older adults may tied to and shaped by the temporal and spatial fluidity of environments, where past experiences in the homeland may be shaping the continued discomfort in Montréal.

Hordyk et al. (2015) interviewed seven immigrant families who had been in Canada for seven years or less. Participants expressed the difficulties tied to snow and the cold as transient. However, one participant, Nina, described persisting difficulties to adjusting to the snow. As described in the demographics of the methods section, most adults and older adults in our study arrived to Canada before 2000. Unlike most participants in Hordyk et al.'s (2015) study, and more so like Nina, despite their long presence in Canada, the difficulties with the snow and the cold have been persistent difficulties. Perhaps this may be tied to the particular migration trajectories of many adults and older adults who arrived to Canada fleeing the war in Ceylon, with the Canadian climate being encountered through an experience forced migration. Based on the findings from this question, youth appear to be more concerned about global-level climate changes, while at the forefront of adult and older adult concerns are more local-level, human health climate and weather concerns.

The less common mention of climate change/global warming among adults and older adults also raises the question of whether people are familiar with this often-mentioned environmental issue, which is at the center of many mainstream environmental discussions and movements. The question in our study asked if people were aware of 'global climate change' being discussed of as a problem in the news. The reason for framing climate change as a problem was because 'climate change' alone is often understood by Tamil-speakers in the community as seasonal changes in climate (Karunanithy Velauthapillai and Tharany Rasaratnam, personal communication, November 4, 2017). Framing the question is such a way was an attempt to differentiate this seasonal climate change from the global climate change from mainstream environmental discussions.

While it cannot be confirmed, it is likely that the large majority of youth participants interpreted the question as the human-induced climate change phenomenon, due to socialization Canadian schools and media. Verbal communication with some youth participants also confirmed this. Youth felt global climate change was a big or huge problem. These results, in combination with the frequent mention of global warming and climate change in the free-list question, challenge perceptions of mainstream environmental groups who assume that racialized communities are uninterested or unconcerned about environmental issues. The study also found that no youth were involved in an environmental organization, reflecting systematic exclusion of the community from mainstream environmental organizations. The results of climate change/global warming concern also serve as a counter-narrative to the environmental justice movement discussions, which are largely focused on racialized communities' environmental concerns as being mainly focused on local/neighbourhood built environments.

Despite my attempt to frame the question differently, through conversations with adult and older adult participants, I learned that many interpreted the question as referring to natural seasonal climate change. That is, not as a phenomenon amplified by human influence. This may explain why all adults and older adults who responded to the question indicated that they were aware of it, contrary to my previous discussions with members of the community. In these discussions, some members were aware of the anthropogenic connection to climate change while

others were not. While the adult and older adult responses cannot be interpreted in the context of global climate change as an anthropogenic phenomenon, they are still informative.

Similar to youth, adults and older adults felt that 'global climate change,' in whichever way they interpreted it, is a very big problem too. These results support the free-list question where weather and climate appeared often in responses, indicating that throughout the community, there are high levels of concern about climate and weather. This is similar to Macias' (2016) study results, where racialized communities had relatively high levels of concerns about climate change. In brief, participants have weather and climate-related concerns about global environments, as well as their local, built environments.

While there are clear differences in main concerns held between the age groups, there are overlaps in the youth and adult/older adult concerns, as found in Macias' (2016) study. These overlaps may relate to the "global-local" link discussed by Burningham & Thrush (2001) in the context of pollution. The high concern over extremes in cold weather or snowfall are part of the global phenomenon of climate change, which includes more weather extremes. However, while the city of Montréal projects warming average temperatures, it predicts increased frequency of extreme snowfalls (Ville de Montréal, 2017).

III. Built environment

Following weather and climate, urban environmental issues came up often in the free-list question about 'environmental concerns'. In the Field Museum study on the Chicago's African-American community in Roseland, housing, safety, and the lack of accessible food were prevalent environmental concerns raised by participants (ECCo, 2011). Similarly, in Taylor-Clark et al.'s (2007) study on racialized communities, main concerns included water and air quality in local environments and housing conditions. Answers provided by the Ilankai Tamil pariticipants included cleanliness, road conditions, noise pollution, and lack of parking.

The built environment is often neglected as part of environmental issues in mainstream discussions, since these are issues most affecting socially-marginalized populations (Di Chiro, 2008). The series of close-ended questions inquired into neighbourhood-level issues: crowding,

high levels of traffic, public transport, and safety (a social environment issue). Other questions asked about the home environment: mould, bedbugs, and indoor crowding. There was also one question about environmental amenities –access to greenspace—providing insight, though limited, on an environmental good. Additionally, the question was limited in that it did not consider work place or school environments where people may spend just as much or even more time.

Neighbourhood traffic received the highest amount of concern, with three quarters of respondents feeling that there is a high amount of traffic/cars, reflecting the free-list question responses on 'environmental issues'. More than half the participants felt that neighbourhood crowding was a problem. Safety was not a big issue, contrary to the concerns of Roseland's African-American community (ECCo, 2011). As for public transport, there was high satisfaction, with 90% of respondents feeling there was good public transport access in their neighbourhoods. This is contrary to the findings in Amar & Teelucksingh's (2015) study on recent immigrants that took place in the Greater Toronto Area, which found participants generally felt there was a "lack of an extensive rapid transit network [and] long commuting times." This may be because Montréal has a relatively effective transit system in the parts of the city where most participants are from. However, in my fieldnotes, I note that in conversations with participants, certain mentioned that buses coming late, particularly in the winter time. These findings are more in line with Amar & Teelucksingh's (2015). The question may have been interpreted as good spatial access, rather than overall access, including temporal. The question warrants further inquiry to gain a deeper understanding of how people perceive their public transport in Montréal.

In terms of the home environment questions, there was low concern among participants, contrary to the above-mentioned studies (Taylor-Clark et al., 2007; ECCo, 2016). While housing is a common concern in the above-mentioned studies, it was not as great a focus in this one. This may be related to the wide variation in economic situations of the participants in this study. However, these responses may have been influenced by stigma associated with having mould and, particularly, bedbugs in the home. Some participants may have felt uncomfortable answering these questions. Though, these issues may also not be as relevant to most people in the community, since some had suggested that I could have asked about mice or cockroaches. A large

majority of participants (88%) also felt they and their family had good access to public parks. Though, it would be important to better understand how participants understood 'access': whether it was perceived as only spatial access or included other forms as well.

Cleanliness

The lack of cleanliness of the surrounding environments came up most often, relative to other built environment-related problems in the free-list question on 'environmental concerns'. This was a common mention among adults and older adults. In conversations about the need for a cleaner surrounding environment, people had described the conditions of their surrounding streets and the need for more effective protocols for garbage pick-up. Garbage or the lack of cleanliness about surrounding street environments were often the focus of the discussion. I had expected cleanliness to appear more often for this question. An explanation may be that litter and garbage were considered as types of pollutants, being categorized in the pollutant category by people. In their study on lower-income communities in the UK, Burningham and Thrush (2001) found garbage to be a recurring theme of local environmental concern, similar to the findings in this study. However, in this study, people of different income groups and neighbourhoods mentioned garbage and litter. Another study by Jones & Rainey (2006) found that litter, dirt, and debris were among the highest neighbourhood environmental concerns for both Blacks and whites in Tennessee and Clarksville, US.

Participants recommended improving cleanliness of their surrounding Montréal environments most as a method for bettering their own health and their family's health. This was the primary suggestion by adults and older adults who participated in the study. People suggested cleaner streets and public spaces, with some people proposing stricter municipal rules. While a cleaner city may be considered as mainly a maintenance and aesthetics-related environmental good, it is also related to health. Much of the current literature on environmental health is focused on physical health impacts. For instance, there is a vast amount of literature discussing the cardiovascular and respiratory impacts of air pollution (Brunekreef & Holgate, 2002; Cesaroni et al., 2014; Guarnieri & Balmes, 2014; Horne et al. 2018; Miller et al., 2007; Nemmar et al., 2002; Pope III et al., 2002).

Though, there has been increasing literature on the relationship between mental health and the physical environment (de Vries et al., 2013; Evans, 2003; Gee & Payne-Sturges, 2004; Hordyk et al., 2015; van Dillen et al., 2011; Wandersman & Nation, 1994). The focus of this literature has been on factors of the built environment, such as housing, neighbourhood safety, and neighbourhood disorder (ex. graffiti, abandoned housing, and litter). However, there is no explicit inquiry into the relationship between litter/garbage and mental health. It is also important to consider the impact of litter/garbage on health. Do people feel that litter/garbage affects their stress? In addition to individual-level health, community level well-being is also important to consider. Does the litter or garbage in people's local/neighbourhood environments prevent them from gathering in outside spaces, for instance?

Air quality

Following increased cleanliness, decreased driving was the second-most common suggestion for improving the Montréal environment to promote health. Answers included increase public transport and increase the number of bike paths. The recommendation of decreasing driving was the top suggestion by youth and older adults and the second-most common in the adult group, following cleanliness. This recommendation is also in line with Woodcock et al.'s (2009) study that found significant public health and environmental benefits could arise by discouraging private vehicle travels and encouraging active travel. As mentioned above, air pollution was a common environmental issue listed by participants. High levels of traffic and cars are linked to higher amounts of air pollution, particularly in urban areas. A mentioned above, air pollution has significant physical health impacts, but it also has mental health impacts. For instance, a more recent environmental health concern is stress-inducing noise pollution associated with traffic cars (Davies et al., 2009). Since air pollution also comes in combustion and non-combustions sources, non-combustion sources, such as resuspended road dust, can impact people's mental health by making the appear dirty. Therefore, high participant concern about air pollution in Montréal may stem from both physical and mental well-being concerns. Additionally, it may also be related to Premji et al.'s finding (2007) where South and South-East Asians were found to be more exposed to air pollution. The frequent public transport suggestions indicate that participants acknowledge that important improvements can be made with Montréal's public

transport system. Subsequent discussions with the community could bring up air quality, driving less, public transport, and potentially, biking.

Plants and greenspace

The third most common suggestion for improving the Montréal environment for the sake of health was the increase in plants and greenspace. This shows how people want to see and experience more aspects of what is often thought of as the 'natural environment' in their surrounding, everyday environments. People in the community often verbally mentioned planting trees as a method to increase the greenery in their neighbourhood and local environments: responses that also came up often in the writing. The proposal to increase greenery was the second-most common answer among the youth.

I recorded one of my data collection experiences with older women in the community. The women carefully recounted their stories of how different plants in their home surroundings in Ceylon could be used for different medicinal purposes, naming and describing the plants along the way. Meanwhile, I was listening with all ears on board, eager to absorb all the richness about Ceylon they were passing on to me. I was also thinking how it is difficult for me to even name three native plants that I meet in my Montréal surroundings. The frequent mention of plants and greenspace as a way to improve health may be related to how in Ceylon, plants are common in the surrounding environment and people often interact with these plants on a daily basis, for medicinal and non-medicinal uses. The frequent mention of plants and greenspace in the youth groups may be showing that youth recognize the different benefits that accompany the presence of the more-than-human, such as plants, in their daily environments. While greenspace was mentioned to a lesser degree, people may also be considering the mainly physical health benefits too.

Hordyk et al. (2015) describe the importance of the 'nature' in the city for migrant communities, where it can act to decrease levels of stress. As van Dillen et al. (2011) discuss, the quantity and quality of streetscape greenery and greenspace are correlated with better self-reported health. As we see, the community is listing suggestions that are in the literature, indicating that people are active agents in assessing and evaluating factors of their environment

that are conducive and unfavourable to their and their family's health (de Vries et al., 2013). In these responses, we see that the distribution of environmental goods, not only the environmental bads, are important for the community.

In brief, when I asked about aspects of the Montréal environment people would like to improve for their family's health, a free-list question, the answers that came up most were: (1) cleaner surroundings, (2) decreasing driving or improving public transport, and (3) increasing trees and plants. This question being guided by the environmental justice literature. As previously mentioned, the literature discusses local built environments of urban racialized communities and public health issues to be most concerning. Additionally, this question was particularly important because the research mainly aims to serve the community, with the secondary goal being to contribute to academic scholarship. This question helps to guide future discussions on what aspects of their immediate environments people in Montréal's Ilankai Tamil community may want to address as a collective. That is, the answers may act as springboards for further discussion and potentially action in following discussions with community members.

IV. Recycling and composting

Another, frequent, but not as common, mention in the free-list questions about 'environmental issues' were recycling and composting. While recycling and composting are more often related to mainstream environmentalism, like in Gibson-Wood & Wakefield's (2013) study on Toronto Hispanic residents', recycling was a recurring response. Some answers described plastic to be a main concern. One participant had described the increase of "plastic" and "ethylene" in her village in Ceylon. Some participants mentioned the unreasonable extensive use of plastic. These responses about recycling and composting indicate that people are concerned about end-of-life use of human-made products and organic waste and suggesting recycling and composting as solutions to the problem. The following is an excerpt from my field notes, relating to environmentalism through composting:

> "Aunty spoke of composting. How people in Ceylon, back when they lived there, and people who live there now, already do this thing we call 'composting'. People have been doing it for centuries, decades. They take food scraps, tree and plant remnants, manure,

> and feed the fields. Supporting the soil as it produces more food. I remember, when I went to Ceylon, how Periyamma was collecting all of this: the plant remnants, food scraps… Environmentalism. Re-purposing what we here take to be waste. Is it a city-thing -not composting? Mummi, [my mother], also tells me sometimes how they used to do this as a family. Take up the organic stuff and spread it on the field. Then, when the keerai [spinach] grew out, they would help harvest."

This excerpt describes the already-known practices of composting in the transnational Ilankai Tamil community. Many Ilankai Tamil adults, having grown up in Ceylon, practiced composting, though under a different name and in a different setting. This also challenges current popularized framings of composting, held in Montréal, and in much of North American. Composting is often displayed as something to be 'taught to migrant communities'. However, migrant communities, particularly first-generation immigrants, as in the case of many Ilankai Tamil adults, come in with their own knowledge and practices of environmentalism (pro-environmental actions). Interestingly, composting, was typically mentioned by youth in this questionnaire. There seems to be a disjuncture, where the knowledge and experiences held by many adults in the community are not practiced in the current Montréal context or passed down to their children. Is it the difficulty in drawing from the practices, suitable for life in Ceylon, and not in Montréal? The lack of physical space? The lack of purpose because there are no agricultural fields to give back to? How can we promote an inter-generational dialogue, drawing from knowledge and practices passed through generations and adapt these to our present stories in Montréal?

V. Natural environment: Plants & animals

Loss of plants and animals on Earth was also a relatively common answer that came up in the free-list responses for the question on 'environmental issues'. Though this answer came up far fewer times than did pollution, weather & climate, built environment, and recycling/composting. As discussed above, many participants, especially youth, considered plants and greenspace as important features for maintaining good health in Montréal.

These findings disrupt mainstream environmental movements perception of racialized communities as being apathetic to concerns about the natural environment. Results are also

contrary to the environmental deprivation theory and the majority of the environmental justice movement, which limit racialized communities' concerns to the built environment, on human-centered issues. Participants were asked about the loss of plants, animal habitats, and the increase in floods and droughts in Canada and Ceylon. More concern for the type of environmental issue, more-than-human centered vs. human-centered, was not evident. Location mattered greatly as well. The concern for loss of plants and animals may tie into intrinsic valuation of the more-than-human, perhaps a sense of identity relating to the more-than-human, or may also be a considered as important resources for human communities. Perhaps reasoning for the concern over the loss of plants and animals may be a combination of some or all of these factors.

In both the literature and this study, we are finding that the local, built environments and their health impacts are a main concern for socially marginalized communities. Considering local, built environment health issues as the only environmental issues of concern for marginalized communities is limited. Environmental deprivation theory follows this line of thought. The theory, while helpful in understanding the exclusion of marginalized communities from mainstream environmental movements, simplifies concerns of marginalized groups to local, built environments, omitting from its discussion natural environment concerns.

Johnson et al. (2004) found that when it came to indirect uses of "wilderness" (ex. visiting a certain wilderness site in the future), differences in responses between racialized and white native-born individuals were negligible. Although Johnson et al. (2004) assessed environmental values and not concerns, the results suggest that concern for the environment is far more complex than explained by either environmental deprivation theory or Maslow's hierarchy of needs theory. This complexity is observed in the above-mentioned results, where there is no clear distinction between of concern level for human-centered vs more-than-human centered environmental issues. By limiting 'environmentally-deprived' communities' environmental concerns to the local environments, it limits their concerns to the immediate environment, required for basic needs, and neglects other environmental concerns that may go beyond basic needs. Macias' (2016) results also indicate that non-local concerns such as climate change and nuclear power generation were more important for racialized communities than local issues such as transportation and air pollution.

VI. Social environment

Participants often felt uncertain after reading some of the free-list questions. One participant asked whether this questionnaire was referring to the physical environment or the social, community environment, expressing how answers would vary greatly. Typically, mainstream environmental discussions are limited to the physical environment. However, this is seldom explicitly stated. As I discuss in the literature review, the environmental justice movement recognizes the intrinsic link between physical environmental issues and social environmental issues, particularly for socially marginalized communities. For instance, we cannot separate inequitable distribution of environmental goods and bad or the lack of procedural justice in environmental matters from the social position of communities and individuals in the larger society. The former may be a result of the latter.

In the mainstream, the physical environment has monopoly over the word environment. In this study, we find the social environment as being important for people as well. In the free-list question on 'environmental issues,' the social environment was the fourth most common response. Concerns included lack of obeyance of rules and the need for peace within the community. Other answers coming up, was language-related and the need for more resources assisting individuals and groups navigate both the English and French language in Québec. We see in these findings that for the participants, the environment should not be limited to the physical. This is also partly recognized in studies on mental health and neighbourhood safety, where precarious social environments are often noted as important built environment concerns (Gee & Payne-Sturges, 2004). Recognizing the importance of the social, this leads us to the concept of sustainability, for which environment, society, as well as economy are the three pillars.

The environmental issues that participants are concerned about are both varied and complex. There is a focus on the local, built environment, particularly concerning health. These results are similar to findings in existing studies on racialized communities. Though, much of this literature, while focused on racialized communities, is also oriented toward lower-income communities. Most participants who answered the question on household income stated an income below $40 000, many also left the question unanswered or wrote unsure. The 2016 census

data on Tamils and Sri Lankans in Montréal indicate a variation in household income levels, ranging from above average to below average (Statistics Canada, 2018). Based off the census data, we see that income levels in the community are varied. Despite this, environmental concerns are mainly focused on local, built environments and health issues. Air pollution and the need for a cleaner surrounding environment were concerns that appeared frequently, in both the questionnaires and in conversations. Concerns also include what is typically thought of as the natural environment, such as weather/climate and plants/animals. These findings push the boundaries of both mainstream conceptions and the environmental justice focus of racialized communities' environmental concerns.

7.2 Understandings of environments

Understandings of environment shaped environmental concerns. The type (social/physical, built/natural), location, and geographic scale (neighbourhood/local or national) of the environment are all factors that shape environmental concern. I recognize social/physical and built/natural are false dichotomies. However, these are the essential discussions taking place on the ground and in the literature. The findings and discussions of this study intend to blur these dichotomies, discussing more realistically, the complex notions of environment and environmental concerns held by members of Montréal's Ilankai Tamil community. The following analysis interprets the research findings based on type, location, and geographic scale of environment.

I. Type of environment

The first question in the survey asked participants to list three things they thought of when they hear the word environment. This was another free-list question. Air and waste management were the topics that came up most frequently. Many participants not only listed air, but also included the quality of it, such as good air or bad air. For waste management, a frequently occurring answer was litter or garbage, followed by recycling and composting. We are seeing that when participants were thinking of 'environment,' they were often thinking of 'environmental problems'. Here as well, there is a focus on health issues in neighbourhood/local, built environments. The mention of waste-management may also be related to non-health issues and issues not centered on humans as well, particularly when it comes to recycling and composting.

Interestingly, the answers related to the natural environment are the next most common. Common answers included nature, plants, and species. Weather and climate, a separate category, appeared often as well. Global warming and climate change appeared most often, along with snow, similar to the answers for the subsequent question on 'environmental issues.' These echo the above analysis where we see that urban racialized communities' environments are not limited to their built environments. Rather, their environments span across different types and integrate with each other, where there was an expressed need for the 'natural' more-than-human, such as plants, in urban environments. Participants in this study appear to express a focus on the built environment, without omitting what is perceived as the natural environment.

That being said, it is also important to consider whether this primary focus on the built environment, and secondary focus on the natural, is reflective of the three age groups or whether there are different patterns emerging in the different groups. Upon closer analysis of the results, we find that in the adult group, air/air quality and waste management appear most often. These are also the top two response categories in the total population. Intriguingly, the natural environment, related to nature and plants/animals was the most common response for youth. Pollution, with no specifics on the type, was the next most common answer in the youth group.

The answers provided by youth were more in line with mainstream understandings of the environment (Di Chiro, 2008). This may be related to the early socialization and schooling of most youth in the Canadian social environment, as 93% of youth in this study attended primary school in Canada. In mainstream discussions of environment held in Canada, as previously mentioned, environment is framed primarily with the natural environment in mind, particularly the idea of 'nature.' Pollution is also one of the terms often discussed as an important environmental issue. The natural environment was a rarer mention, despite how adults in the community have generally had more interactions with the more-than-human in their Ceylon villages/towns prior to coming to Canada. The focus of adults' environments is shown to be on their present environments that are physically surrounding them, following the literature on racialized and migrant communities, which also takes this focus of the present, physical surroundings. Some adults also asked if I was asking specifically about environments in Montréal or environments in Ceylon. It is possible that some people interpreted this first question to be asking about the Montréal environment.

The social environment, while not as common as physical environment-related answers, also came up often. This, along with waste management, were the most-mentioned responses in the older adult group. Though, it is also important to recognize there were only 11 older adults who participated in the study, one of whom did not respond to this question. Unsurprising, but interesting, these age-specific results show the variations between the age groups and overall concerns in the community. Overall, the built environment is mainly considered, with the natural environment being a secondary. Additionally, the social environment is also an important consideration when people are thinking of the environment.

Relating to the question on 'environmental issues,' discussed in the previous section, when thinking of the 'environment' participants often mentioned issues in their environment. Many answers that appeared for 'environmental issues' also appear for environment. For instance, pollution is the most common 'environmental issue' that is mentioned, with air pollution being a third of these responses. Similarly, in this question asking about 'environment', air and air quality are most common and pollution follows. The same can be said about litter and garbage, mentioned frequently in both questions as well. Intriguingly, while the natural environment, related to plants and animals, is mentioned frequently in the question on 'environment', it is comparatively less frequently mentioned in the question on 'environmental issues.' This shows a possible disjuncture in the types of environments that occupy the dominant spaces in environment-related discourses and the actual issues that are most of concern to people. That is, while 'environment' is often represented as 'nature' and the issues in the mainstream are centered around this 'nature,' a broadened scope, more inclusive of the built and social environments, may be more reflective of the environments that are relevant for other communities.

II. Location

The Ilankai Tamil community in Montréal is a relatively recent migrant community. Many migrant communities often hold a strong attachment to their place of origin, also known as their 'homeland,' and making them part of a certain diaspora (Gardner & Mand, 2012; Safran, 1991). As discussed in the literature review, migrant communities are also considered to be part of larger transnational communities, maintaining a variety of both concreted and abstract ties to the lands and wider communities that shape their identities (Chapman & Beagan, 2013). However, in the existing literature, no studies go beyond exploring the environments in which the communities are physically present.

In this study, the large majority of people (79) said that Ilankai environments are part of the environments that matter to them, calling for a reconsideration of the focus of environmental studies on migrant communities. Considering only the local and national environments in which people are physically present neglects the larger transnational and translocal contexts these communities are embedded in. Though, the is variation between the cohorts that must also be

acknowledged. Of the 15 people who answered no, 13 were youth. This shows age-specific, or perhaps more accurately, cohor-specific, heterogeneity in understandings of environment. One participant's comments at the end of the questionnaire expressed that asking whether people had physically spent time in Ilankai would have been insightful. Having been physically present in Ceylon, with memories that one could then draw from and reflect on, may greatly shape a person's response to this question (Gardner & Mand, 2012; Zeitlyn, 2012).

The higher number of no's in the youth cohort may be linked to growing up in Canada. Relative to the adult and older adult cohort, the youth cohort have less memories and connections to the homeland, which could explain why there are significantly more people who do not consider Ceylon environments in the environments that matter to them. However, we would have to pursue further research to explore whether the factor of having or travelled to Ilankai would influence youth's understandings of the environments that matter to them. These findings would benefit from further inquiry. It would be insightful and important to better understand the stories behind these answers. Why are Ceylon environments important for the community? In what ways are these environments important? Are there stories that could better explain the value of Ceylon environments for Montréal's Ilankai Tamil community?

Air and water

In the series of questions about the quality of air and water in Montréal and their Ceylon hometown, we find that participants find that overall, participants find there is better air in Ceylon. 33% of adults/older adults felt there was very good air in their Ceylon hometown, whereas only 7% of participants felt there was very good air in Montréal. Drawing from the fieldnotes, some participants described the freshness of air in their villages/towns due to the proximity of the sea or the presence of trees and other plants. This echoes Edgley et al.'s (2004) study where participants found that "no air (apart from the seaside)" was "safe and therefore healthy." In this study on Montréal's Ilankai Tamil community, we are seeing how the perceptions of the surrounding environment are embedded in historical contexts, where experiences in present-day environments are informed by experiences in environments of the past (Lahiri, 2011; Tolia-Kelly, 2004). With the majority of adults and older adult participants migrating due to the war, the

perception of the Montréal air may be influenced by a certain yearning for the memories of a healthier air left behind in Ceylon.

On the other hand, adults/older adults felt that water quality in their Ceylon hometown is slightly worse than the water quality in Montréal. There were also more people concerned about a problem of agricultural pesticides in their Ceylon hometown water than in their Montréal water. Certain participants described recent news about ammonia in village water wells, which they had read on the town's news website. Other participants described news of high salt concentrations in wells. Based on the findings, participants rated water to be of worse quality than air. This may be tied to the significantly lower level of traffic in Ceylon villages, where main roads are far fewer than in Montréal. Interestingly, in comparing the water quality, participants mainly drew from present-day news websites, describing facts. In slight contrast, when describing the quality of the air, participants drew from personal experiences of the past, recalling the air in their villages/towns.

Situated risk: the more-than-human (plants and animals)

In this study, results indicate that environmental concern is shaped by situated risk. That is, the location in which the risk occurs is highly relevant for shaping the response in concern. Overall, participants showed slightly more concern for the loss of plants and animals in Ceylon, compared to Canada. Though upon closer inspection, we see youth had higher concern levels for losses of plants and animals in Canada. The higher concern for Canada may be related to a more familiar relationship with the more-than-human. Additionally, it may also be related to having a personal stake in the problem, as the youth are living in expanding cities, and possibly recognizing an impact they are personally having on the loss of plants and animals.

The higher concern for Ceylon is felt by adults and older adults. The relationship that adults and older adults who grew up in Ceylon may be explained by an anecdote during data collection. In one of my conversations with women in the community, they recounted the value of the Panai maram (the palmyra palm tree). They told me how not one part of the tree was wasted, each part being used for a different purpose. They walked me through the steps of using the fruit from the tree and making savoury sweets from it and how the maram's leaves were used to make a cooking

tool for a staple food made in many Ilankai Tamil families. Four women were telling the stories, each contributing her bit. When the parts about the savoury sweets came in, each of the women remembered the process and the sweet taste that cannot be experienced in Canada. This anecdote is telling of the relationship that many adults and older adults share with the more-than-human in Ceylon. Each of the four women were from different villages, yet each understood the other's contribution to the story and each also recognized and remembered the sweet creation that came from the fruit of the maram. This anecdote reflects the narratives of South Asian migrant women in Tolia-Kelly's (2004) study, where women recalled the familiar landscapes of their pasts during the interviews.

The higher concern of adults and older adults for the plants and animals in Ceylon draws a more complex picture of how understandings with environments shape environmental concern. The contrast of the youth group's higher levels of concern for the Ceylon environments further reinforces the importance of considering migration contexts of different people in community. The factor of interacting with and having a direct dependence on the more-than-human in their surroundings may also explain why a higher proportion of adults (65%) gave the highest rating, relative to youth, where a lower proportion gave the highest rating (50%). In addition to the uses of the Panai maram explained above, people had also recounted how trees and plants provided much-needed shade and medicinal benefits, in addition to the day-to-day food. Another factor is that the livelihoods of many people in the villages/towns were dependent on fishing and agriculture. People who spent an extensive amount of their time in Ceylon were interacting more with the more-than-human, relative to Canada. Adult and older adult interactions with the more-than-human in Ceylon occurred in a much larger degree than for youth who grew up in Canada. In urbanized contexts, interactions with the more-than-human are more limited, though not inexistent (de Vries et al., 2013; van Dillen et al., 2011).

These results challenge the narratives that racialized migrant communities do not consider the more-than-human. These are often the narratives held in mainstream environmental discussions. Further still, these results are also pushing the boundaries of the dominant narratives in the environmental justice movement where racialized communities are not concerned about plants and animals in the environments that matter to them. We are finding that people in the

Ilankai Tamil community do feel the loss of plants and animals to be a big problem. We went beyond asking only about the locations in which people are physically present and learned that there is significant value to locating the risk in places that align with the transnational identities of a migrant community.

Situated risk: floods and droughts

As mentioned earlier in the discussion, a consequence of climate change is the increased severity and frequency of weather extremes, such as floods and droughts. While some people may not be familiar with the term climate change, the consequences can be more easily understood. Instead of asking only about the concern of floods and droughts occurring in the places where communities are physically present, we consider how location of floods and droughts may influence responses.

We found that overall, participants were more concerned about the situation in Ceylon. Within the different cohorts, we see that there is higher concern among youth, adults, and older adults about flooding and droughts in Ceylon. In contrast, we saw that youth were more concerned about plant and animal loss in Canada. This shift in youth response may be related to 'who' is being affected in each of these countries. In Montréal, droughts do not significantly affect people's lives. Additionally, there are less social ties with people in regions in Canada who are more affected. Likewise, while Montréal has experienced some flooding, the majority of the community has not been significantly affected. In Ceylon, however, droughts and floods are more common and they affect people's daily lives, especially with many being dependent on agriculture as a livelihood. Floods are more common in the monsoon season, affecting the quality of life of residents in Ceylon. Participants and other members of the Ilankai Tamil community in Montréal likely experienced these events when they had been living in Ceylon. It is possible that the higher concern for floods and droughts in Ceylon can be related to social ties, but also perhaps, a recognition that an increase in severity of floods and droughts may have more of an impact in Ceylon. Additionally, overall, loss of plants and animals were considered to be more concerning than floods and droughts. This result is also contrary to the environmental justice literature, which explains that racialized communities are more concerned about human-centered issues.

By comparing responses for the questions about the more-than-human and the impacts of climate change, we see that the location of environment as well as the type of environmental risk are important to consider in combination. In other words, we cannot consider risk in isolation from location, as we see that location heavily shapes the level of concern by communities and different cohorts in the community. Ties to the homeland are not all the same in the community. In the case of the Ilankai Tamil community the amount of time spent in Ceylon, experiences in Ceylon, stories passed down, interactions with the more-than-human in Montréal, and a slew of other factors related to migration trajectories impact understandings of environment and in consequence, environmental concern.

III. Geographic scale

Whittaker et al. (2005) discuss that more local issues may be more relevant than issues that are further off. To test this, we asked participants about their concerns of flooding and droughts in their Montréal hometowns and their Ceylon hometown. We then compared the results with the questions that asked about flooding and droughts in Canada and Ceylon. Therefore, we were comparing local-level and national-level concerns. Participants felt that the potential increase in floods and droughts in Montréal was a bigger problem that the increase in drought and flood severity and frequency in Canada. This result may be due to the spatial proximity of threat, as discussed by Whittaker et al. (2005). Additionally, in the present moment, flooding is not a common occurrence in Montréal, but potential future increases may be of higher concern to participants. The higher concern was more apparent in the youth group than adults, indicating perhaps, a closer attachment of the youth group to the environments in Montréal.

For Ceylon, floods and droughts at the national scale garnered higher concern by participants. Youth showed slightly higher concern for the local level problem, whereas adults showed slightly higher concern for the national-level problem. The tendency for youth to ascribe higher concern to the local level issue is intriguing and warrants further inquiry. I had anticipated adults and older adults to have a higher level of concern for local risks in Ceylon. An explanation is that adults and older adults are more concerned about the present situation. The nation-level floods and droughts questions were situated in the present, whereas the questions about local

risk were temporally situated in the future. In brief, we are seeing that the interaction between spatial scale, location, types of environmental risk, and community or sub-community in question is complex and not as easily defined as done in Whittaker et al. (2005).

We are finding in this study that understanding environments as primarily local or national may influence environmental concern. While this discussion has been focused on the local-national geographic scales, we should also consider environment and environmental issue frames at the global scale. The problem of global climate change has been largely framed at a global scale. In our findings, people had high levels of concerns about climate change in their global environments. Similarly, there were also high levels of concern over the impact of climate change in environments at the local and national level. On another note, we should also consider which geographic level framing of environmental issue incites engagement with the issue. As discussed by Scannell & Gifford (2011), place-attachment influenced level of engagement with environmental issues related to climate change.

8. Conclusion

A community's understandings of environment heavily influence concern about an environmental issue. The way a community understands their relevant environments in terms of the type of environment (built or natural and social or physical), the location of environments, and the geographic scale of the environments interact in complex ways with the type of risk to shape environmental concern. The findings in this study support and challenge existing literature and non-academic work relating to communities and environmentalism. Firstly, we find that participants in Montréal's Ilankai Tamil community do have environmental concerns and hold high levels of concerns about a variety of environmental issues. This challenges mainstream notions of racialized migrant communities as not caring about the environment (Hickcox, 2017). We also see that in line with the dominant environmental justice literature, older adults and adults in the study appear to have more concerns about environmental issues related to the built environment. However, this study also pushes the boundaries of literature that engages with environmental concerns of racialized communities by explicitly recognizing the transnational migration contexts in which the Ilankai Tamil community is embedded in. Studies often interpret geographic proximity to equate to place-attachment: an assumption that more spatially distant environments are less relevant for communities (Whittaker et al., 2005). While this may be the case for some communities, depending on the environments under consideration, we must critically acknowledge the migration contexts of the community in mind and their attachment to the place. As we see in this study, environmental issues in more proximal relative to more geographically distant locations did not necessarily garner more concern (ex. loss of plants and animals in Ceylon and Canada).

This study incites a call to, first, acknowledge that racialized migrant communities do have environmental concerns. Second, it also recognizes the need to reshape conversations around environment and environmental issues "grounded in personal, located experience" (Day, 2006). Considering environmental issues in the context of understandings of environments specific to communities' identities, histories, and larger contexts will allow us to better engage with different communities. This is particularly relevant for issues such as climate change and concerns of

migrant communities. As aforementioned, in North America, climate change is often framed as a global issue, by people who are often not afflicted personally or by people who do not have a personal relationship with the places or communities most affected (Black et al., 2016). The impersonal narrative refers to an unknown other, in terms of land and the people who are part of this land. However, for many migrant communities, they may have relatives located in these places where climate change is already impacting them negatively. They may have stories tying back to these places and memories of their homeland, making climate change a personal environmental issue. This study supports the idea for a shift in framings of discussions of climate change as affecting the 'unknown other'.

The findings in this study push us past traditional divisions of environmental concern. Environmental concerns and understandings of environments that underlie these concerns paint a complex and varied picture. The local built environment, with a focus on health issues were shown to be a main concern held by the community and more specifically, older adults. This is in line with the literature on racialized, low-income communities and migrant communities. However, the natural environment beyond and within the built environment were also concerns in the community, especially for youth. We also see that concerns in the community span beyond national borders, aligning with transnational and translocal identities. The project also found community members to be engaging with environment beyond a spatial level, into the temporal realm. The influence of previous experiences of air quality in a Ceylon inform present experiences of air quality in Montréal, allowing us to engage with the concept of environment and environmental issues on temporal, as well as spatial scales. This resulted in the emerging theme of temporal environments. We also observe other unanticipated patterns with regards to cohorts, with youth responses being different in many areas from adult/older adult responses, particularly with youth responses leaning toward the natural environment and adults and older adults' responses leaning toward built environmental issues with more concern also related to environments in Ceylon. This complexity gives us all the more reason to inquire further and better understand how to address the procedural justice aspect for environmental participation and decision-making.

From a procedural justice standpoint, we see that members in Montréal's Ilankai Tamil community do have environmental concerns. This raises the questions of the community and other racialized migrant communities' lack of representation and inclusion in environmental discussions in Montréal and the wider Canadian and international context. The discussion on framings teach us that we must go beyond framings of environment and environmental issues by other communities and center narratives and framings by the communities themselves. This research project contributes to opening up the space for narratives of racialized migrant communities in both the mainstream and alternative environmental justice movements. The use of both direct survey results in conjunction with the conversations and stories that emerged from the interactions are valuable in that they begin to make space for not only Montréal's Ilankai Tamil community's concerns and understandings environments, but also other racialized migrant communities.

7.4 Strengths and limitations

This study contributes to filling the gaps in existing literature. There is insufficient research on environmental concerns and understandings of environment in racialized communities in Montréal, and more generally, in Canada. Furthermore, there is a lack of research recognizing migration contexts of racialized migrant communities in relation to environmental concerns and understandings. Existing research in environmental studies largely considers migrant communities under the linear model, neglecting their transnational or translocal belongings. This research project on environmental concerns and understandings of a racialized migrant community in Montréal tailors its study design for the specific community: Ilankai Tamil community. The questionnaire design considers the community's homeland and implications for environmental concerns and understandings. Additionally, given that I am a member of Montréal's Ilankai Tamil community and the primary researcher in this project, it is another strength. As a member of the community, drawing from informal knowledge, I can provide more context for the results of the questionnaire and the conversations that took place around the questionnaire. Furthermore, the questionnaire was available in Tamil: the mother tongue of the community. The Tamil questionnaire allowed us to reach participants who may not have otherwise felt comfortable or been able to complete the questionnaire in English, due to language barriers.

The research project also has its fair share of limitations. Firstly, the results cannot be generalized to the entire Ilankai Tamil community. While we did attempt to make our sample representative based on age, gender, and place of residence, we relied on convenience sampling through immediate and extended networks. This resulted in an overrepresentation of women in the sample, which may have biased the results. However, given the lack of options to obtain a representative sample of the community, we did manage to obtain more than 30 youth and adults, with at least 15 people identifying as men and 15 identifying as women in each age group. Unfortunately, we did not obtain the desired sample of 16 older adults, specifically women. For the purpose of this research, which is mainly for action-oriented work within the community, the lack of a representative sample is not a major setback.

Second, findings also cannot be generalized to all racialized migrant communities. Montréal's Ilankai Tamil community has a specific social, historical, political, economic, geographic, and cultural context. This context is different from that of other racialized migrant communities, especially given that the community established in Montréal due mainly to forced migrations during a lengthy civil war. Other communities will undoubtedly have differing migration trajectories, with different relationships with the homeland and different durations of settlement in the land of destination, among other factors. This study may be more relevant to racialized migrant communities who have forced migration trajectories as well. In communities where many members arrive as asylum seekers and refugees, their social and economic contexts in the new nation tend to be different from communities who underwent voluntary migrations. These factors may affect environmental concerns, particularly if communities are in neighbourhoods with worse built environment conditions. These factors would resultantly affect understandings of environment as well. However, this study does allow us to further question and complicate existing understandings of environment and environmental concerns within racialized migrant communities, particularly when it comes to the framing of questions and the types of questions asked. This project can act as a springboard to engage with other communities in similar types of conversations.

A third limitation is that questionnaires may not be the most suitable method of data collection for members of Montréal's Ilankai Tamil community. For many youth in the community,

questionnaires may be more appropriate, given that such forms of inquiry are normal in the school system. Youth tend to be more used to answering questionnaires. However, many adults and older adults in the community were not as used to answering questionnaires. During the data collection process, many had a difficult time answering the questions. On the other hand, in conversations pre-, during, and post-questionnaire, adults and older adults were much more comfortable sharing their environmental concerns, understandings of environment, and related experiences. For subsequent research that may take place, conversations with participants would be much more appropriate. While questionnaires have their limitations, they also allowed me to reach many people in the community, garnering many results in a shorter period. A study inquiring into environmental concerns and understandings of Montréal's Ilankai Tamil community had not been pursued before, and the purposed was to reach as many people in the community as possible.

9. Next Steps

The next step in this research project will be disseminating the results in Montréal's Ilankai Tamil community. We will do this by translating the findings and interpretations into a communicable form. This means that we will minimize the use of jargon, ensure that communication is done in the appropriate languages (mainly English and Tamil), and integrate space for input and interpretations from members of the community. Results dissemination will take place through both visual and verbal forms. Many members in the community expressed the desire to take action about built environment problems, particularly related to cleanliness of their neighbourhoods. This will be an important topic of conversation. An example of a question could be how do we mobilize as a community around issues relating to our built environments in Montréal? Another question could be whether people see avenues for transnational or translocal solidarities relating to environmental issues in Ceylon, as was the case with the Indian diaspora solidarities during the disaster in Bhopal (Pariyadath & Shadaan, 2014). Though, in such a partnership, we would also need to recognize and reflect on the North-South power dynamics, ensuring that the voices and stories of communities that are experiencing the environmental problem are centered (Bolognani, 2014).

Another step following this research could be to promote intergenerational dialogues between youth, adults, and older adults in the community. While the different cohorts show different degrees of concern and care about different environmental issues, it will be important to build intergenerational dialogues to share stories and built solidarities within the community itself. This could be an opportunity for other youth to learn the stories relating to the use of plants in Ceylon from other elders in the community. This can also be an opportunity for adults and older adults to share their built environment concerns and for youth to assist in mobilization strategies while helping navigate language barriers. A reciprocal relationship will be fundamental for procedural justice around environmental issues concerning the community.

Bibliography

1. Agyeman, J. (2001). Ethnic minorities in Britain: short change, systematic indifference and sustainable development. *Journal of Environmental Policy & Planning*, *3*(1), 15-30.
2. Agyeman, J., & Evans, B. (2004). 'Just sustainability': the emerging discourse of environmental justice in Britain?. *The Geographical Journal*, *170*(2), 155-164.
3. Amar, A. K., & Teelucksingh, C. (2015). Environmental justice, transit equity and the place for Immigrants in Toronto. *Canadian Journal of Urban Research*, *24*(2), 43-63.
4. Amnesty International. (2008). *Sri Lanka: Silencing Dissent*. Amnesty International International Secretariat. Retrieved from http://www.refworld.org/pdfid/47bd9b6d2.pdf
5. Anderegg, W. R., & Goldsmith, G. R. (2014). Public interest in climate change over the past decade and the effects of the 'climategate' media event. *Environmental Research Letters*, *9*(5), 054005.
6. Andrey, J., & Jones, B. (2008). The dynamic nature of social disadvantage: implications for hazard exposure and vulnerability in Greater Vancouver. *The Canadian Geographer/Le Géographe canadien*, *52*(2), 146-168.
7. Arp III, W., & Kenny, C. (1996). Black environmentalism in the local community context. *Environment and Behavior, 28*(3), 267-282.
8. Berry, J. W., & Sabatier, C. (2011). The acculturation and adaptation of second generation immigrant youth in Toronto and Montreal. *Immigrant children: Change, adaptation, and cultural transformation*, 125-148.
9. Black, S., Milligan, R., & Heynen, N. (2016). Solidarity in Climate/Immigrant Justice Direct Action: Lessons from Movements in the US South. *International Journal of Urban and Regional Research*, *40*(2), 284-298.
10. Bolognani, M. (2014). Visits to the country of origin: how second-generation British Pakistanis shape transnational identity and maintain power asymmetries. *Global Networks*, *14*(1), 103-120.
11. Blunt, A. (2007). Cultural geographies of migration: mobility, transnationality and diaspora. *Progress in human geography*, *31*(5), 684-694.

12. Brunekreef, B., & Holgate, S. T. (2002). Air pollution and health. *The lancet, 360*(9341), 1233-1242.
13. Bullard, R., & Wright, B. H. (1987). Environmentalism and the politics of equity: emergent trends in the black community. *Mid-American Review of Sociology, 12*(2), 21-37.
14. Burn, S. M., Winter, P. L., Hori, B., & Silver, N. C. (2012). Gender, ethnic identity, and environmental concern in Asian Americans and European Americans. *Human Ecology Review*, 136-145.
15. Burningham, K., & Thrush, D. (2001). *Rainforests are a long way from here: the environmental concerns of disadvantaged groups*. YPS for the Joseph Rowntree Foundation.
16. Buzzelli, M., & Jerrett, M. (2004). Racial gradients of ambient air pollution exposure in Hamilton, Canada. *Environment and planning A*, *36*(10), 1855-1876.
17. Carter, E. D., Silva, B., & Guzmán, G. (2013). Migration, acculturation, and environmental values: The case of Mexican immigrants in Central Iowa. *Annals of the Association of American Geographers*, *103*(1), 129-147.
18. Cesaroni, G., Forastiere, F., Stafoggia, M., Andersen, Z. J., Badaloni, C., Beelen, R., ... & Fratiglioni, L. (2014). Long term exposure to ambient air pollution and incidence of acute coronary events: prospective cohort study and meta-analysis in 11 European cohorts from the ESCAPE Project. *Bmj*, *348*, f7412.
19. Chapman, G. E., & Beagan, B. L. (2013). Food practices and transnational identities: Case studies of two Punjabi-Canadian families. *Food, Culture & Society*, *16*(3), 367-386.
20. Clarke, L., & Agyeman, J. (2011). Is there more to environmental participation than meets the eye? Understanding agency, empowerment and disempowerment among black and minority ethnic communities. *Area*, *43*(1), 88-95.
21. Davies, H. W., Vlaanderen, J. J., Henderson, S. B., & Brauer, M. (2009). Correlation between co-exposures to noise and air pollution from traffic sources. *Occupational and environmental medicine*, *66*(5), 347-350.
22. Day, R. J. (2006). Traffic-related air pollution and perceived health risk: lay assessment of an everyday hazard. *Health, Risk & Society, 8*(3), 305-322.

23. de Vries, S., Van Dillen, S. M., Groenewegen, P. P., & Spreeuwenberg, P. (2013). Streetscape greenery and health: stress, social cohesion and physical activity as mediators. *Social Science & Medicine*, *94*, 26-33.
24. Deng, J., Walker, G. J., & Swinnerton, G. (2006). A comparison of environmental values and attitudes between Chinese in Canada and Anglo-Canadians. *Environment and Behavior*, *38*(1), 22-47.
25. Di Chiro, G. (2008). Living environmentalisms: coalition politics, social reproduction, and environmental justice. *Environmental Politics*, *17*(2), 276-298.
26. Edgley, A., Pilnick, A., & Clarke, M. (2011). 'The air still wasn't good… everywhere I went I was surrounded': Lay perceptions of air quality and health. *Health Sociology Review*, *20*(1), 97-108.
27. Environment, Culture, and Conservation [ECCo]. (2011) Engaging Chicago's Diverse Communities in the Chicago Climate Action Plan: Community #6 -Roseland's African-American community. *The Field Museum*.
28. Evans, G. W. (2003). The built environment and mental health. *Journal of urban health*, *80*(4), 536-555.
29. Gardner, K., & Mand, K. (2012). 'My away is here': place, emplacement and mobility amongst British Bengali children. *Journal of Ethnic and Migration Studies, 38*(6), 969-986.
30. Gee, G. C., & Payne-Sturges, D. C. (2004). Environmental health disparities: a framework integrating psychosocial and environmental concepts. *Environmental health perspectives*, *112*(17), 1645.
31. George, G. (2011). The Canadian Tamil diaspora and the politics of multiculturalism. *Identities*, *18*(5), 459-480.
32. Gibson-Wood, H., & Wakefield, S. (2013). "Participation", white privilege and environmental justice: Understanding environmentalism among hispanics in Toronto. *Antipode*, *45*(3), 641-662.
33. Greenberg, M. R. (2005). Concern about environmental pollution: How much difference do race and ethnicity make? A New Jersey case study. *Environmental Health Perspectives*, *113*(4), 369.

34. Greiner, C., & Sakdapolrak, P. (May 01, 2013). Translocality: Concepts, Applications and Emerging Research Perspectives. *Geography Compass; 7*(5), 373-384.
35. Guarnieri, M., & Balmes, J. R. (2014). Outdoor air pollution and asthma. *The Lancet*, *383*(9928), 1581-1592.
36. Haluza-Delay, R. (2007). Environmental justice in Canada. *Local Environment*, *12*(6), 557-564.
37. Haluza-DeLay, R., & Fernhout, H. (2011). Sustainability and social inclusion? Examining the frames of Canadian English-speaking environmental movement organisations. *Local Environment*, *16*(7), 727-745.
38. Hess, M., & Korf, B. (2014). Tamil diaspora and the political spaces of second-generation activism in Switzerland. *Global Networks*, *14*(4), 419-437.
39. Hickcox, A. (2017). White environmental subjectivity and the politics of belonging. *Social & Cultural Geography*, 1-24.
40. Hiebert, D. (2015). Ethnocultural Minority Enclaves in Montreal, Toronto and Vancouver. Institute for Research on Public Policy= Institut de recherche en politiques publiques.
41. Hirsch, J., & Malec-McKenna, S. (2011). Engaging Chicago's Diverse Communities in the Chicago Climate Action Plan: Community #5 -West Ridge's South Asian Community. *The Field Museum*.
42. Hordyk, S. R., Hanley, J., & Richard, É. (2015). " Nature is there; its free": Urban greenspace and the social determinants of health of immigrant families. *Health & place*, *34*, 74-82.
43. Horne, B. D., Joy, E. A., Hofmann, M. G., Gesteland, P. H., Cannon, J. B., Lefler, J. S., ... & Kartchner, D. (2018). Short-term Elevation of Fine Particulate Matter Air Pollution and Acute Lower Respiratory Infection. *American journal of respiratory and critical care medicine*.
44. Hunter, L. M. (2000). A comparison of the environmental attitudes, concern, and behaviors of native-born and foreign-born US residents. *Population and Environment*, *21*(6), 565-580.

45. Inglehart, R. (1995). Public support for environmental protection: Objective problems and subjective values in 43 societies. *PS: Political Science & Politics*, *28*(1), 57-72.
46. Jafri, B. (2009). Rethinking "green" multicultural strategies. In J Agyeman, P Cole, R Haluza-Delay and P O'Riley (eds) Speaking for Ourselves: Environmental Justice in Canada (pp 219–232). Vancouver : UBC Press.
47. Johnson, C. Y., Bowker, J. M., Bergstrom, J. C., & Ken Cordell, H. (2004). Wilderness values in America: does immigrant status or ethnicity matter?. *Society and Natural Resources*, *17*(7), 611-628.
48. Karunanithy Velauthapillai and Tharany Rasaratnam, conversation during survey construction, November 4, 2017.
49. Kebede, K. (2017). Twice-hyphenated: transnational identity among second-generation Ethiopian-American professionals in the Washington, DC, metropolitan area. *African and Black Diaspora: An International Journal, 10*(3), 252-268.
50. Kelly, P., & Lusis, T. (2006). Migration and the transnational habitus: evidence from Canada and the Philippines. *Environment and Planning A, 38*(5), 831-847.
51. Kershaw, S., Gower, S., Rinner, C., & Campbell, M. (2013). Identifying inequitable exposure to toxic air pollution in racialized and low-income neighbourhoods to support pollution prevention. *Geospatial health*, *7*(2), 265-278.
52. Lahiri, S. (2011). Remembering the city: translocality and the senses. *Social & Cultural Geography, 12*(8), 855-869.
53. Leiserowitz, A., Feinberg, G., Rosenthal, S., Smith, N., Anderson, A., Roser-Renouf, C., & Maibach, E. (2014). What's in a name? Global warming vs. climate change. *Yale University and George Mason University*.
54. Leung, C., & Rice, J. (2002). Comparison of Chinese-Australian and Anglo-Australian environmental attitudes and behavior. *Social Behavior and Personality: an international journal*, *30*(3), 251-262.
55. Liu, Y., & Segev, S. (2017). Cultural orientations and environmental sustainability in households: A comparative analysis of Hispanics and non-Hispanic Whites in the United States. *International Journal of Consumer Studies*, *41*(6), 587-596.

56. Lovelock, B., Jellum, C., Thompson, A., & Lovelock, K. (2013). Could immigrants care less about the environment? A comparison of the environmental values of immigrant and native-born New Zealanders. *Society & Natural Resources*, *26*(4), 402-419.
57. Macias, T. (2016). Environmental risk perception among race and ethnic groups in the United States. *Ethnicities, 16*(1), 111-129.
58. Marino, S. (2015). Making space, making place: Digital togetherness and the redefinition of migrant identities online. *Social Media + Society, 1*(2), 2056305115622479.
59. Masuda, J. R., Poland, B., & Baxter, J. (2010). Reaching for environmental health justice: Canadian experiences for a comprehensive research, policy and advocacy agenda in health promotion. *Health promotion international*, *25*(4), 453-463.
60. Masuda, J. R., Teelucksingh, C., Zupancic, T., Crabtree, A., Haber, R., Skinner, E., ... & Fridell, M. (2012). Out of our inner city backyards: Re-scaling urban environmental health inequity assessment. *Social science & medicine*, *75*(7), 1244-1253.
61. Miller, K. A., Siscovick, D. S., Sheppard, L., Shepherd, K., Sullivan, J. H., Anderson, G. L., & Kaufman, J. D. (2007). Long-term exposure to air pollution and incidence of cardiovascular events in women. *New England Journal of Medicine*, *356*(5), 447-458.
62. Mohai, P., & Bryant, B. (1998). Is there a" race" effect on concern for environmental quality?. *Public Opinion Quarterly*, 475-505.
63. Nemmar, A., Hoet, P. M., Vanquickenborne, B., Dinsdale, D., Thomeer, M., Hoylaerts, M. F., ... & Nemery, B. (2002). Passage of inhaled particles into the blood circulation in humans. *Circulation*, *105*(4), 411-414.
64. Pariyadath, R., & Shadaan, R. (2014). Solidarity after Bhopal: Building a Transnational Environmental Justice Movement. *Environmental Justice*, *7*(5), 146-150.
65. Pfeffer, M. J., & Stycos, J. M. (2002). Immigrant environmental behaviors in New York city. *Social Science Quarterly*, *83*(1), 64-81.
66. Pope III, C. A., Burnett, R. T., Thun, M. J., Calle, E. E., Krewski, D., Ito, K., & Thurston, G. D. (2002). Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution. *Jama*, *287*(9), 1132-1141.

67. Powell, M., & Rishbeth, C. (2012). Flexibility in place and meanings of place by first generation migrants. *Tijdschrift voor economische en sociale geografie, 103*(1), 69-84.
68. Premji, S., Bertrand, F., Smargiassi, A., & Daniel, M. (2007). Socio-economic correlates of municipal-level pollution emissions on Montreal Island. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, 138-142.
69. Safran, W. (1991). Diasporas in modern societies: Myths of homeland and return. *Diaspora: A journal of transnational studies*, *1*(1), 83-99.
70. Scannell, L., & Gifford, R. (2013). Personally relevant climate change: The role of place attachment and local versus global message framing in engagement. *Environment and Behavior*, *45*(1), 60-85.
71. Schlosberg, D. (2004). Reconceiving environmental justice: global movements and political theories. *Environmental politics*, *13*(3), 517-540.
72. Schuldt, J. P., Konrath, S. H., & Schwarz, N. (2011). "Global warming" or "climate change"? Whether the planet is warming depends on question wording. *Public Opinion Quarterly*, *75*(1), 115-124.
73. Sheppard, J. A. C. (1995). The black-white environmental concern gap: An examination of environmental paradigms. *The Journal of Environmental Education*, *26*(2), 24-35.
74. Simone, D., Eyles, J., Newbold, K. B., Kitchen, P., & Williams, A. (2012). Air quality in Hamilton: Who is concerned? Perceptions from three neighbourhoods. *Social indicators research*, *108*(2), 239-255.
75. SimplyAnalytics. (2017). Map with Environics Analytics and Census 2011 Detailed Mother Tongue: Tamil Data. Retrieved November 6, 2017, from SimplyAnalytics database.
76. Statistics Canada. (2017). Immigration and ethnocultural diversity: key results from the 2016 Census. *The Daily*. Statistics Canada. Retrieved from http://www.statcan.gc.ca/daily-quotidien/171025/dq171025b-eng.htm
77. Statistics Canada. (2018). *Populations in Private Households by Mother Tongue -Tamil (5), ethnic origin -Sri Lankan (8), and Household Income Statistics for the Montréal, Toronto, and Vancouver Census Metropolitan Areas, 2016 Census* [Table]. Custom

tabulation purchased from Statistics Canada. Last updated February 26, 2018. Beyond 20/20.

78. Stock, I. (2016). Transnational social fields in forced immobility: Relations of young Sub-Saharan African migrants in Morocco with their families and friends. *Identities, 23*(4), 407-421
79. Taylor, D. E. (2000). The rise of the environmental justice paradigm: Injustice framing and the social construction of environmental discourses. *American behavioral scientist*, *43*(4), 508-580.
80. Taylor-Clark, K., Koh, H., & Viswanath, K. (2007). Perceptions of environmental health risks and communication barriers among low-SEP and racial/ethnic minority communities. *Journal of Health Care for the Poor and Underserved*, *18*(6), 165-183.
81. Teelucksingh, C., Poland, B., Buse, C., & Hasdell, R. (2016). Environmental justice in the environmental non-governmental organization landscape of Toronto (Canada). *The Canadian Geographer/Le Géographe canadien*, *60*(3), 381-393.
82. Tolia-Kelly, D. P. (2004). Landscape, race and memory: biographical mapping of the routes of British Asian landscape values. *Landscape research*, *29*(3), 277-292.
83. Van Dillen, S. M., de Vries, S., Groenewegen, P. P., & Spreeuwenberg, P. (2012). Greenspace in urban neighbourhoods and residents' health: adding quality to quantity. *J Epidemiol Community Health*, *66*(6), e8-e8.
84. Ville de Montréal. (2017). Climate Change Adaptation Plan for the Montréal Urban Agglomeration 2015-2020: Summary Version 2017 Edition. Retrieved from http://ville.montreal.qc.ca/pls/portal/docs/PAGE/ENVIRO_FR/MEDIA/DOCUMENTS/2017_PACCAM_2015-020_SUMMARY.PDF
85. Waldron, I. (2018). Re-thinking waste: mapping racial geographies of violence on the colonial landscape. *Environmental Sociology*, 1-18.
86. Walker, G. (2012). *Environmental justice: concepts, evidence and politics*. Routledge.
87. Walton, O. (2015). Framing disputes and organizational legitimation: UK-based Sri Lankan Tamil diaspora groups' use of the 'genocide' frame since 2009. *Ethnic and Racial Studies*, *38*(6), 959-975.

88. Wandersman, A., & Nation, M. (1998). Urban neighborhoods and mental health: Psychological contributions to understanding toxicity, resilience, and interventions. *American Psychologist*, *53*(6), 647.
89. Whittaker, M., Segura, G. M., & Bowler, S. (2005). Racial/ethnic group attitudes toward environmental protection in California: Is "environmentalism" still a white phenomenon?. *Political Research Quarterly*, *58*(3), 435-447.
90. Wiener, C. S., Manset, G., & Lemus, J. D. (2016). Ocean use in Hawaii as a predictor of marine conservation interests, beliefs, and willingness to participate: an exploratory study. *Journal of Environmental Studies and Sciences*, *6*(4), 712-723.
91. Woodcock, J., Edwards, P., Tonne, C., Armstrong, B. G., Ashiru, O., Banister, D., ... & Franco, O. H. (2009). Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *The Lancet*, *374*(9705), 1930-1943.
92. Zeitlyn, B. (2012). Maintaining transnational social fields: the role of visits to Bangladesh for British Bangladeshi children. *Journal of Ethnic and Migration Studies*, *38*(6), 953-968.

APPENDIX A: English version of questionnaire

REB File number: 264-1117

Title of Project: Environmental concerns within Montréal's Ceylon/Sri Lankan Tamil community

You are invited to participate in this survey about the environmental concerns members of the Ceylon/Sri Lankan Tamil community living in Montréal. Your participation will require approximately 10 minutes. Participating in the study might not directly benefit you, but it may allow better understanding of the most common and important environmental issues within the community. There are no right or wrong answers in this survey. Your participation in this study is entirely voluntary. You may refuse to answer any of the questions and may withdraw at any time during the survey, for any reason. Your refusal or withdrawal will in no way affect the relationship with the investigator. If you have any further questions about the study, at any time, feel free to contact Kabisha Velauthapillai at 514-398-4046 or soolal.environment@gmail.com . You may also contact Dr. Jill Hanley at 514-398-4046 or jill.hanley@mcgill.ca. If you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill Ethics Officer at 514-398-6831 or lynda.mcneil@mcgill.ca. Thank you for your time and for sharing.

To be eligible for this survey, you must be 18 years of age or older, live in Montréal, and self-identify as Ceylon/Sri Lankan/Ilankai Tamil. If you agree to participate in the survey, please begin answering the questions. If not, please return the survey to the researcher.

Note: This survey often mentions 'your Ceylon/Sri Lankan hometown.' The hometown refers to a **city, town or village**. It is the place in Sri Lanka where your family is from.
(If you have more than one city, town, or village in mind, consider all when answering the questions.)

General Environmental Issues

1. When you hear the word environment, what are the first 3 things that come to mind? (This could be anything, and perhaps even unrelated to environment.)	1) _____ 2) _____ 3) _____
2. In your opinion, what are some important environmental issues?	1) _____ 2) _____ 3) _____
3. Have you heard about global 'climate change' being spoken of as a problem in the news?	__Y __N ***(please skip to question 5 if you checked _N)***
4. Do you feel that climate change is a problem?	*Please use a scale of 1 to 5, where **1=not a problem and 5=huge problem.*** 1 2 3 4 5 Unsure

Nation-specific Environmental Issues

5. When you think of the environments that matter to you, do you consider environments located in ***Ceylon/Sri Lankan***?	__Y __N __Unsure

	How do you see the following situations? Use a scale of 1 to 5, where **1=not a problem at all and 5=huge problem**.					
6. With increasing urban populations, urban areas are also expanding. This expansion also causes the loss of plants and animal habitats in ***Canada***.	1	2	3	4	5	Unsure
7. With increasing urban populations, urban areas are also expanding. This expansion also causes the loss of plants and animal habitats in ***Ceylon/Sri Lanka***.	1	2	3	4	5	Unsure
8. There is an increased number and seriousness of droughts and floods in ***Canada***.	1	2	3	4	5	Unsure
9. There is an increased number and seriousness of droughts and floods in ***Ceylon/Sri Lanka***.	1	2	3	4	5	Unsure
10. The possible future increased seriousness in droughts or floods in ***Montréal***.	1	2	3	4	5	Unsure
11. The possible future increased seriousness in droughts or floods in ***your hometown in Ceylon/Sri Lanka***.	1	2	3	4	5	Unsure

Well-being

12. What aspects of your ***Montréal*** environment could be improved to promote your family's well-being?	1) _____ 2) _____ 3) _____

	1=very good impacts, 3=both <u>good and bad</u> impacts, and 5=very bad impacts.					
13. How do you feel ***Montréal's*** air quality impacts your/your family's well-being?	1	2	3	4	5	Unsure
14. How do you feel ***your hometown in Ceylon/Sri Lanka's*** air quality impacts your family's well-being?	1	2	3	4	5	Unsure
15. How do you feel ***Montréal's*** water quality impacts your/your family's well-being?	1	2	3	4	5	Unsure
16. How do you feel ***your hometown in Ceylon/Sri Lanka's*** water quality impacts your family's well-being?	1	2	3	4	5	Unsure

17. Do you feel that there is a problem of agricultural pesticides in your water in ***Montréal***?	__Y	__N
18. Do you feel that there is a problem of agricultural pesticides in water in ***your hometown in Ceylon/Sri Lanka***?	__Y	__N
19. Is your neighbourhood too crowded with people?	__Y	__N
20. Is there a lot of traffic/cars in your neighbourhood?	__Y	__N
21. Is there a bedbug problem in your home, building, or neighbourhood?	__Y	__N
22. Is there a mould problem in your home?	__Y	__N
23. Do you feel safe in your neighbourhood?	__Y	__N
24. Is there enough space in your home for you and your family?	__Y	__N
25. Is there good public transportation in your neighbourhood?	__Y	__N
26. Do you/your family have good access to public parks?	__Y	__N

Reminder: You may refuse to answer any of the questions.

Demographics

1. How often do you use the word environment?
□Never □Rarely □ Sometimes □ Often □ Unsure

2. Are you part of an environmental organization? __Y __N

3. What neighbourhood do you live in?
□Côte-des-Neiges
□Ville Saint-Laurent
□Parc-Extension
□Dollard-des-Ormeaux
□Other, please specify:
_____

4. What are the first 3 digits of your postal code?

_____

5. What is your Ceylon/Sri Lankan hometown?
_____

6. Where is your place of birth?
□Canada □Ceylon/Sri Lanka □ Other

7. In which country did you attend primary school?
□Canada □Ceylon/Sri Lanka □ Other

8. If Sri Lanka is listed as your place of birth or primary education, what were your reasons for moving to Canada? Check more than 1 box if applicable.
□ financial reasons
□ marriage
□ war
□ a better future for your children
□ for your own education
□ your parents brought you when you were a child
□ other, please specify: _____

9. If you were not born in Canada, in what year did you arrive?

□ Before 1975
□ 1975-1979
□ 1980-1984
□ 1985-1989
□ 1990-1994
□ 1995-1999
□ 2000-2004
□ 2005-2009
□ 2010-2014
□ After 2014

10. Are you/have you been married?

__Y __N

11. Are you a parent?

__Y __N

12. If you are a parent, where did you raise your family?

□Canada □Ceylon/Sri Lanka □ Other

13. What is your age?

□18-30 □31-64 □65+

14. What is your gender?

□Man, □Woman, □Other

15. What is your approximate annual household income

□Less than $10 000
□$10 001-20 000
□$20 001-30 000
□$30 001-40 000
□$40 001-50 000
□$60 001-70 000
□$70 001+
□Unsure

16. Do you have any comments or questions? Are there other questions you feel should have been asked?

APPENDIX B: Tamil version of questionnaire

REB File number: 264-1117

திட்டத்தின் தலைப்பு: மொன்றியலில் உள்ள இலங்கைத் தமிழர்களின் சூற்றுச்சூழல் பிரச்சினைகள்

இந்த ஆய்வில் பங்கேற்க நீங்கள் அழைக்கப்படுகிறீர்கள். இதற்கு 10-15 நிமிடங்கள் எடுக்கப்படும். இந்த ஆய்வில் கலந்துகொள்வது உங்களுக்கு சிலவேளை நேரடியாக பயனளிக்காது. இதனால் சுற்றுச்சூழல் சமூக பிரச்சனைகள் என்ன என்பதை அறியக்கூடியதாக இருக்கலாம். இதற்கு சரி அல்லது பிழை என்று இல்லை. உங்கள் அபிப்பிராயங்களை சொல்லுங்கள். உங்களை கட்டாயப்படுத்தவில்லை. விருப்பம் என்றால், பங்குபற்றுங்கள். நீங்கள் சில கேள்விகளுக்கு விடைகள் தரவிருப்பம்இல்லை என்றால், விடலாம். இதில் பங்கு பற்றியவுடன் நிறுத்த வேண்டும் என்றாலும், நிறுத்தலாம். இதில் உங்களுக்கு பங்கு பற்ற விருப்பம் இல்லை என்றதாலோ அல்லது தொடங்கி இடையில் நிருத்தினாலும், பறவாயில்லை.

கபிஷா வேலாயுதபிள்ளை: 514-398-4046, soolal.environment@gmail.com
டாக்டர் ஜில் ஹான்லி: 514-398-4046, jill.hanley@mcgill.ca
நலன்புரி பற்றியோ அங்கீகாரத்தைப் பற்றியோ கேள்விகள் கேட்கவேண்டியிருந்தால், மெக்கில் பல்கலைக்கழக நெறிநமுறை அதிகாரி லிண்டா மெக்னீள் உடன் தோடர்பு கொள்ளவும்.
தொலைபேசி: 514-398-6831, மின்னஞ்சல்: lynda.mcneil@mcgill.ca
உங்களுடைய நேரத்தை இதனுடன் செலவலிட்டதற்கும் இதனுடன் பங்குபற்றியதற்கும் நன்றி.

இந்த ஆய்வில் பங்கேற்க, (1) உங்களுக்கு வயது 18 அல்லது கூடவாக இருக்க வேண்டும், (2) நீங்கள் மொன்றியலில் வசிக்க வேண்டும், (3) நீங்கள் இலங்கை தமிழர்ளாக இருக்க வேண்டும். ஆராய்ச்சியில் பங்கேற்க ஒப்புக்கொண்டால் தயவு செய்து, கேள்விகளுக்கு பதில்அளியுங்கள். பங்கேற்க விரும்பவில்லை என்றால், தயவு செய்து இந்த ஆய்வை திருப்பித் தரவும்.

குறிப்பு: இந்த ஆய்வின் படி, இலங்கையில் சொந்த இடம் அதாவது **ஊரோ, நகரமோ, கிராமமோ** எங்கிருற்து உங்கள் குடும்பத்தவர்கள் வந்தவர்கள். இரண்டோ அல்லது மூன்று இடமாக இருந்தாலும் பிரச்சனை இல்லை.

<u>பொதுவான சுற்றுச்சூழல் பற்றிய பிரச்சனைகள்</u>

1. சுற்றுச்சூழலை பற்றி நினைக்கும்போது முதல் என்ன மூன்று (3) காரணங்கள் நினைவில் வருகின்றன? (இந்த மூன்று காரணங்களும் சூழல் பற்றியோ அல்லது இதனுடன் சம்மந்தம் இல்லாவிட்டாலும் பிரச்சனை இல்லை.)	4) _____ 5) _____ 6) _____
2. உங்களை அபிப்பிராயத்தின் படி, முக்கியமான சுற்றுச்சூழல் பிரச்சனைகள் என்ன?	4) _____ 5) _____ 6) _____
3. உலகளாவிய காலநிலை மாற்றம் பிரச்சனைகள் பற்றி செய்தி பார்த்தனீர்களா அல்லது வாசித்தோ கேட்டோ இருக்கிறீர்களா?	__ ஆம் __ இல்லை ***(பதில் இல்லை என்றால், கேள்வி 5க்கு செல்லுங்கள்)***
4. உலகளாவிய காலநிலை மாற்றம் பிரச்சனை என்று நினைக்கிறீர்களா? ⇨	*ஒன்றிலிருந்து ஐந்து வரை உள்ள இலக்கத்தில் ஏதாவது ஒரு இலக்கத்தை வட்டமிடவும்.* ***1= இது பிரச்சனை இல்லை*** ***5= பெரிய பிரச்சனை*** 1 2 3 4 5 நிச்சயமற்ற

<u>இடங்களை குறிப்பிட்ட சுற்றுச்சூழல் பிரச்சனைகள்</u>

5. உங்களுக்கு முக்கியமான சூழல்களை நினைக்கும்போது, **இலங்கையில்** உள்ள சூழல்களை கருத்தில் எண்ணுகிறனீங்களா?	__ஆம் __ இல்லை __ நிச்சயமற்ற

	பின்வரும் ஆறில் இருந்து பதினொன்று வரை உள்ள கேள்விகளுக்கு ஒன்றிலிருந்து ஐந்து வரை உள்ள இலக்கத்தில் ஏதாவது ஒரு இலக்கத்தை வட்டமிடவும். **1= இது பிரச்சனை இல்லை** **5= பெரிய பிரச்சனை**
6. **கனடாவில்** சனத்தொகை பெருகிக்கொண்டு வருவதால் நகரங்கள் பெரிதாகிக் கொண்டு போகிறது. இதனால் மரங்கள், மிருகங்களின் வாழ்விடங்களில் இழப்புக்கள் ஏற்படுகிறது.	1 2 3 4 5 நிச்சயமற்ற
7. **இலங்கையில்** சனத்தொகை பெருகிக்கொண்டு வருவதால் நகரங்கள் பெரிதாகிக் கொண்டு போகிறது. இதனால் மரங்கள், மிருகங்களின் வாழ்விடங்களில் இழப்புக்கள் ஏற்படுகிறது.	1 2 3 4 5 நிச்சயமற்ற
8. **கனடாவில்** வளமையை விட வெள்ளமும் வறட்சியும் அடிக்கடி வருவதோடு அதிகரிப்பாக வந்து கொண்டிருக்கிறது.	1 2 3 4 5 நிச்சயமற்ற
9. **இலங்கையில்** வளமையை விட வெள்ளமும் வறட்சியும் அடிக்கடி வருவதோடு அதிகரிப்பாக வந்து கொண்டிருக்கிறது	1 2 3 4 5 நிச்சயமற்ற
10. **மொன்றியலில்** வெள்ளமும், வறட்சியும் வளமையை விட அதிகரிப்பாக வரக்கூடும்.	1 2 3 4 5 நிச்சயமற்ற
11. **இலங்கையில் சொந்த இடத்தில்** வெள்ளமும், வறட்சியும் வளமையை விட அதிகரிப்பாக வரக்கூடும்.	1 2 3 4 5 நிச்சயமற்ற

<u>சுவாத்தியம்</u>

12. **மொன்றியல்** சுற்றுச்சூழலில் என்ன அம்சங்கள் மேம்படுத்த வேண்டும் உங்கள் குடும்ப சுவாத்தியங்களுக்கு?	4) _____ 5) _____ 6) _____

	விளைவுகள் 1= மிகவும் நல்லது, 3= நல்லதும் கூடாததும், 5= மிகவும் கூடாதது.
13. **மொன்றியலில்** காற்றின் தரத்தில் என்ன நினைக்கிறீர்கள் உங்கள் குடும்ப சுவாத்தியத்தைப் பொறுத்த மட்டில்?	1 2 3 4 5 நிச்சயமற்ற
14. **இலங்கையில் சொந்த இடத்தில்** காற்றின் தரத்தில் என்ன நினைக்கிறீர்கள் உங்கள் குடும்ப சுவாத்தியத்தைப் பொறுத்த மட்டில்?	1 2 3 4 5 நிச்சயமற்ற
15. **மொன்றியலில்** தண்ணீர் தரத்தில் என்ன நினைக்கிறீர்கள் உங்கள் குடும்ப சுவாத்தியத்தைப் பொறுத்த மட்டில்?	1 2 3 4 5 நிச்சயமற்ற
16. **இலங்கையில் சொந்த இடத்தில்** தண்ணீர் தரத்தில் என்ன நினைக்கிறீர்கள் உங்கள் குடும்ப சுவாத்தியத்தைப் பொறுத்த மட்டில்?	1 2 3 4 5 நிச்சயமற்ற

17. **மொன்றியலில்** தோட்டம் செய்யும் பொழுது பூச்சிகளுக்கு அடிக்கும் மருந்து நீங்கள் பாவிக்கும் தண்ணீருக்குள் வருகுது என்று நினைக்கிறீர்களா?	__ ஆம் __ இல்லை
18. **இலங்கையில் சொந்த இடத்தில்** தோட்டம் செய்யும் பொழுது பூச்சிகளுக்கு அடிக்கும் மருந்து தண்ணீருக்குள் வருகுது என்று நினைக்கிறீர்களா?	__ ஆம் __ இல்லை
19. உங்கள் சுற்றுச்சூழல் புறத்தில் மக்கள் அதிகமாக இருக்கிறார்களா?	__ ஆம் __ இல்லை
20. உங்கள் சுற்றுச்சூழல் புறத்தில் போக்குவரத்து அதிகமாக இருக்கிறதா?	__ ஆம் __ இல்லை
21. நீங்கள் இருக்கும் வீட்டிலோ மாடிக்கட்டித்திலோ மூட்டை பிரச்சனைகள் இருக்கா?	__ ஆம் __ இல்லை
22. உங்கள் விட்டுசுவர்களில் பூஞ்சனம் பிரச்சனை இருக்கிறதா?	__ ஆம் __ இல்லை
23. உங்கள் சுற்றுச்சூழல் புறத்தில் நீங்கள் பாதுகாப்பாக இருக்கிறீர்கள் என்று நினைக்கிறீர்களா?	__ ஆம் __ இல்லை
24. நீங்கள் இருக்கும் வீடு உங்கள் குடும்பத்துக்கு காணுமோ?	__ ஆம் __ இல்லை
25. உங்கள் சுற்றுசூழல் புறத்தில் பொதுவான போக்குவரத்து வசதிகள் இருக்கின்றதா?	__ ஆம் __ இல்லை

26. உங்களுக்கும் உங்கள் குடும்பத்துக்கும் பொதுவான பூங்காவிற்கு போவதற்கு நல்ல அணுகுமுறை இருக்கின்றதா?	__ ஆம் __ இல்லை

நினைவூட்டல்: சில கேள்விகளுக்கு பதில் தர விருப்பமில்லை என்றால் பிரச்சினை இல்லை.

1. சுற்றுச்சூழல் என்ற சொல்லை எவ்வாறு பயன்படுத்துகிறனீங்கள்?

□ ஒருபோதும் □ அரிதாக □ சில வேளைகளில் □ அடிக்கடி
□ நிச்சயமற்ற

2. சுற்றுச்சூழல் அமைப்புக்கு முதலில் நீங்கள் பங்கேற்றனீர்களா?
__ ஆம் __ இல்லை

3. நீங்கள் எங்கு வசிக்கிறீர்கள்?
□ கோட்டி நேச்
□ வில்-சென்லோறன்
□ பாக் எக்ஸ்தென்சன்
□ டாலார்ட் டெஸ் ஓர்மோ
□ அல்லது வேறுஎங்கு என்று குறிப்பிடவும்:_____

4. என்ன உங்கள் முதல் மூன்று வீட்டு அஞ்சல் குறியீடு [postal code]? _____
_____

5. இலங்கையில் சொந்த இடம் என்ன? _____

6. நீங்கள் எங்கை பிறந்தனீர் கள்?
□ கனடா □ இலங்கை □ வேறு இடம்

7. நீங்கள் முதலாவது வகுப்பிலிருந்து ஆறாம் வகுப்பு வரை எங்கு படித்தனீர்கள்?
□ கனடா □ இலங்கை □ வேறு இடம்

8. இதிலுள்ள ஆறாவது கேள்விக்கும் ஏழாவது கேள்விக்கும் இலங்கை என்று பதிலளித்தால் ஏன் கனடா வந்தனீர்கள்? இதிலே எட்டு விடைகள் தரப்பட்டிருக்கு. இதில் எத்தனையாவது உங்களுக்கு பொருந்தும் என்று பார்த்து பெட்டியில் சரி போடவும். அதாவது

□ போர்
□ நிதி
□ கலியாணம்
□ உங்கள் படிப்பு
□ உங்கள் பிள்ளைகளின் எதிர்காலம்
□ நீங்கள் சிறு பிள்ளை அதனால் உங்கள் பெற்றோர்கள் இங்கு கொண்டுவந்தனர்
□ வேறுஏதாவது. தயவு செய்து குறிக்கவும்: _____

9. நீங்கள் கனடாவில் பிறக்கவில்லை என்றால் எத்தனையாம் ஆண்டு இங்கு வந்தனீர்கள்?

□ 1975 முன்னுக்கு
□ 1975-1979
□ 1980-1984
□ 1985-1989
□ 1990-1994
□ 1995-1999
□ 2000-2004
□ 2005-2009
□ 2010-2014
□ 2014 பின்னுக்கு

10. நீங்கள் கலியாணம் கட்டிவிட்டீர்களா?
__ ஆம் __ இல்லை

11. நீங்கள் பெற்றோரா?
__ ஆம் __ இல்லை

12. நீங்கள் பெற்றோர் என்றால் உங்கள் பிள்ளைகளை எங்கு வளர்த்தனீங்கள்?
□ கனடா □ இலங்கை □ வேறு இடம்

13. உங்களுக்கு என்ன வயது?
□18-30 □31-64 □65+

14. நீங்கள் என்ன பால்?
□ ஆண்பால் □ பெண்பால் □ வேறு

15. உங்கள் வருடாந்த வருமானம் என்ன?

□ $10 000 குறைவு
□$10 001-20 000
□$20 001-30 000
□$30 001-40 000
□$40 001-50 000
□$60 001-70 000
□$70 001+
□ நிச்சயமற்ற

16. இந்த ஆராட்சி பற்றி கருத்துகளோ கேள்விகளோ சொல்லவோ கேட்கவோ இருக்கா? வேறு ஏதாவது கேள்விகள் கேட்டிருக்கலாம் என்று நினைக்கிறீர