Research article

You have declared a climate emergency…now what? Exploring climate action, energy planning and participatory place branding in Canada

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Abstract: The negative impacts of climate change are becoming increasingly clear and cities around the world are a driving force behind these problems, accounting for over 70% of all greenhouse gas emissions. In recognition of the need to act quickly, over 2300 jurisdictions, including 653 in Canada, have recently made climate emergency declarations (CEDs). Yet because most of these CEDs have only been made over the past few years, very little research has been completed focused on what cities are doing after making these decisions. Informed by a literature review on CEDs, urban governance, citizen engagement, communication and place branding strategies, we seek to advance understanding in this important area. To do so, we present a study that centered around two Decision Theatre workshops conducted with climate, energy and communication professionals (n=12) working for or with local governments in four Canadian cities that have declared CEDs. Workshops were transcribed and analyzed via thematic analysis to identify and understand a series of solutions and challenges facing cities. The top solutions recorded were creating targets/action plans, the importance of collaboration, and sharing information with communities. The top two challenges identified were the diversity of city staff and getting the message out. The study closes with a discussion of the broader implications of this work, including recommendations for cities and calls for future research in this critical area.

Keywords: climate change; climate emergency declarations; place branding; urban planning; governance; citizen engagement

1. Introduction

Climate change is happening and action needs to be taken immediately. Increasing sea levels, the frequency of extreme weather events like floods, droughts, storms and the spread of illnesses are just some of the symptoms of human-induced climate change [1–3]. All of these have severe effects on the basic needs, homes, livelihoods and well-being of those living in cities [1,4]. Yet cities are not only the setting for where many of these problems are playing out, they are also a large contributor to the problem. Cities are what Mi et al. [5] call "the core of climate change mitigation" (p. 582), with urban areas currently responsible for over 71% of all greenhouse gas emissions. By 2030, that figure is estimated to rise to more than 76% [6,7]. Urban centers thus represent an important battleground in the fight against climate change.

To help in both reducing emissions and adapting to climate change, cities around the world declare climate emergencies or climate emergency declarations (CEDs). CEDs are viewed as new forms of action from the government that arose to emphasize the importance of climate change [8]. Beginning in 2016 with the City of Darebin, Australia, these declarations has been made by over 2300 jurisdictions in 40 countries [8]. Of those, 650 jurisdictions across Canada, as well as the federal government, have enacted climate emergency declarations. In addition, more than 400 Canadian municipal governments have gone beyond CEDs, and have participated in the Partners for Climate Protection Program which aims to decrease emissions of greenhouse gases and combat climate change [9]. Since CEDs are a relatively recent phenomena, very little is known about their impact, implementation or follow-up (i.e., the strategies, actions, challenges and local impacts that may use). What little research is out there [3], warns that these statements alone are not enough to significantly lower emissions and mitigate climate change. This suggests a fast-policy framing of CEDs, where efforts are largely symbolic and meant to be politically expedient, rather than substantive. Instead, researchers suggest the need to go beyond CEDs to incorporate more comprehensive strategies. In particular, this can include working with local populations toward the adoption of actions that will both fight climate change and support the broader interests of other stakeholders, including other government departments and local businesses [3]. This suggestion also aligns with others that point to the value of collaboration and networking between different stakeholders [10,11].

To harmonize the public's views and perceptions of their city's efforts to address climate change, potential solutions include communication and place branding strategies. Gustavsson and Elander [10] and Heikkinen [11] both argue that considering CEDs through a place branding lens is a new and yet-to-be-tested idea that may hold significant potential in climate change mitigation. Here, place branding extends beyond the simple, symbolic framing which is typically understood (i.e., logos, slogans and in this context CEDs; see [12]) to more complex conceptualizations that involve the organization of a community's assets, local advantages and people. Indeed, effective place branding requires participatory partnerships with residents and stakeholders to have legitimacy [13] and have the best chance of being effective in achieve the brand's goals [14].

Especially in the absence of much-needed action and given the failure of so-called traditional emission reduction strategies[1] [15–17], the time is ripe to explore a wide variety of climate change

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[1] What we mean by this is that established policies and actions to lower emissions have largely not done so–at least to the level that is needed. In Han and Ahn [16], the authors outline how UN Secretary General Guterres was "encouraged [that] young participants…continue fixing his generation's failures" (p. 15)

solutions. There is currently a clear gap in the environmental social science literature surrounding what cities, especially those in Canada, are doing after declaring climate emergencies. This includes identifying and better understanding actions of all kinds, including communication, community engagement and participatory place branding strategies in the fight against climate change. To help address this gap, we present a study which sought to develop a greater understanding of CEDs and how Canadian cities are addressing climate change at the local level. We do so through the facilitation of two Decision Theatre workshops with 12 climate, energy, communication and place-branding professionals. In these in-person and online workshops, our rich discussions were focused is on the solutions and challenges that cities are facing following their declarations. Reflecting both the wide range of people we invited to take part and the varied areas of expertise within our research team, we were interested in gathering insights and learning of experiences within traditional emission reduction strategies, as well as more novel, sometimes indirect actions.

2. Literature review

In this section, we take the reader through multiple sets of literature relevant to our study. This includes research related to climate emergency declarations and urban governance (2.1), citizen engagement and participation (2.2) and climate change and place branding (2.3). Together, shaped by the multidisciplinary expertise of our team of authors (i.e., climate change mitigation, urban governance and place branding) this review has not only shaped our key research objectives and decision theatre workshops but also helps in situating our research findings.

2.1. Climate emergency declarations and urban governance

Given they have only been announced since 2016, very little is known about CEDs, including the actions that follow [18]. Broadly, cities are embedded in a number of political-economic processes at different geographic scales, which have influenced their approach to climate change action. On one hand, cities are embedded in meso- (i.e., provincial/state, federal policies) and macro-scale policy efforts (i.e., UNFCCC; the Paris Agreement). This forces cities, which need to be governed nimbly and responsively, to exist within a broader and slower moving policy environment. On the other hand, decades of neoliberal policy have redefined the spatial structure of power and decision-making, giving cities considerable responsibility [19]. In the context of climate change policy, cities now have a role to play. Indeed, important initiatives have been born out of this role and responsibility–including the EU's 100 Carbon Neutral and Smart Cities program [20] and C40, a global network of mayors confronting the climate crisis [11].

In this wider context, cities now are tasked with addressing local challenges through substantive efforts and in contextually appropriate ways. Policy and practice have to match the realities of the jurisdiction. From a CED-perspective, preliminary research has warned that CEDs may only be political gestures to improve governments' reputations on national and international stages [18,21]. The argument here is that these declarations are symbolic actions that draw attention to the urgency of climate change but do not offer fundamental approaches on how to address the issue [18]. Similarly, researchers such as Ruiz-Campillo et al. [22] have stated that the main goal of these declarations is simply to raise awareness about the severity of climate change. Nissen and Cretney [23] state that worries have also been expressed that declarations may have shifted resources and action

strategies away from previous and ongoing initiatives, therefore slowing down climate change efforts and adding stress and worry to communities. Still others argue that CEDs have been helpful in a variety of ways, including catalyzing climate action and encouraging collaborations between governments levels and the public [24].

In terms of the mechanisms behind the development of CEDs, analysis from Ruiz-Campillo et al. [22] of over 300 governments worldwide, including the government of Canada, argued that there are mainly four ways in which declarations have been made (see also [18]). These are: a) actively from above, b) passively from above, c) actively from below, and d) passively from across. "Actively from above" encompasses active initiation from higher levels of authority, such as the Federal governments. "Passively from above" encompasses local councils bringing forward the urgency of climate change to leading governments. "Actively from below" was documented as the most frequent pathway toward declaring CEDs and represents is the role of social movements that push governments to act, while "passively from across" is when governments simply learn from or copy declarations of nearby cities and municipalities [18,22].

2.2. Citizen engagement and participation

Based on the tendency to be created "actively from below," citizen participation is a key driving force pushing governments to declare climate emergencies. Therefore, it is important to understand the hierarchies and levels of citizen participation often used in climate change and city planning. Citizen participation is often defined as the engagement of a group of people to attain shared goals and aims [25]. Helping to conceptualize this idea are two well-known and cited models of citizen or public participation: i) Arnstein's ladder of citizen participation and ii) Davidson's wheel of participation [26,27].

Arnstein's ladder depicts urban planning and citizen participation in a hierarchical form and explains the conditions by which 'true citizen participation' can be achieved in planning processes. The ladder is composed of eight rungs, separated into three main segments. The lowest segment is labelled nonparticipation, the middle is labelled [degrees of] tokenism, and the highest labelled as [degrees of] citizen power. Nonparticipation includes manipulation and therapy; it is where citizens are "educated" or informed about plans but have no participation whatsoever. Degrees of tokenism include informing, consultation and placation, when citizens are heard and listened to but have no insurance that their needs will be considered[2]. Finally, degrees of citizen power include concepts of partnership, delegated power and citizen control, i.e., the conditions by which citizens can either negotiate with those in power and/or have the power to make decisions themselves[3] [26]. It is here that Arnstein takes a normative stance in emphasizing on the importance of citizen participation, stressing that bottom-up approaches are most desirable in planning for cities.

Developed in response to what he saw as some shortcomings to Arnstein's ladder, Davidson created the wheel of participation, which is made up of four main segments: information, consultation, participation and empowerment [27]. His main issue with Arnstein's ladder centered

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[2] At these levels, they can also advise governments but also have no power to ensure that their needs and advice are being implemented [26]

[3] Examples of recent empirical research that has used, adapted, or 'enhanced' Arnstein's ladder in the study of climate action and low-carbon transitions includes studies from Blue et al. [28] and Walker and Baxter [29]

around its hierarchical nature, which he believed was not optimal. Specifically, he argued that a ladder is not flexible enough when it comes to understanding the context-specific conditions that might best lead to community empowerment and engagement [27]. He also stated that Arnstein's ladder allows people to aim for and expect inappropriate levels of citizen involvement in matters that should not involve them. Instead, Davidson believes we should be thinking about participation as a wheel to allow the public to be engaged within the "appropriate levels" of participation, not necessarily the very "top rungs."

2.3. Climate change and place branding

Another understudied factor that may have a role in addressing climate change is place branding, which is the process and product relating to developing a brand for a specific place [10,30,31]. Place branding can play an important role in crystalizing and communicating a message to a target audience to generate some form of action (i.e., attract visitors, residents, or investments; or to affect some form of behavioural change). For cities, their place brand should take initiative, responsibility and ownership of the services it provides as well as actively promote core principles and reflect the interaction between the local government and its residents, both practically and visibly [32]. This is needed as a local government may have all the 'ingredients' necessary to achieve a goal (i.e., climate change action) but if it is not communicated no one will know, no one will participate and no one will buy in [33]. Similar to other urban policies over whether they are 'fast' or 'substantive', place branding needs to be more than just a high-level message and instead requires all elements of the community to align under the brand. Brands that have poor alignment or do not reflect the realities of a place are unlikely to produce meaningful change.

Eshuis and Edwards [13] and Kavaratzis [34] have both argued that it is vital to have public participation incorporated into the place branding processes. Representation of a wide range of community members provides greater democratic legitimacy to a branding effort and is important in harmonizing residents' views about their place with a government's wider goals and initiatives [34]. Extending this, participatory place branding allows a place to convey its history, values, characteristics and people through the collaboration of a wide variety of stakeholders, governments and the public [30,35]. In the context of our study, this means that the public, other stakeholders, and city staff might work collaboratively to address climate change through practices of place branding [11,30,32].

While examples are rare, a case study from Glasgow, Scotland shows that participatory planning and place branding strategies that bring together the city government and the wider local public may help cities reach their climate, sustainability and development goals [36]. As a place whose environment has long suffered from its industrial past, in 2010 Scotland's largest city declared its sustainable Glasgow initiative (SGI). The focus of the plan is on climate change and reducing emissions through several means including energy efficiency measures, renewable energy and district heating. The SGI is said to have helped the city achieve a 30% reduction in CO_2 emissions by 2020 and is now working to help the city become NetZero by 2030. Apart from its successes, what is most unique about Glasgow's plan is how much they: i) stress active community collaboration and ii) use the plan to help place brand the city. According to Naylor et al. [36], the city stated the inclusion of communities in social, economic and environmental decisions and development would lead to better community resilience. In summary, Glasgow provides a clear

example of how climate action, community engagement and place branding may work together to help with a city's sustainability goals.

3. Research approach and methodology

To better understand what Canadian cities are doing post-climate emergency declarations–including the role that participatory planning and place branding may have–our team conducted a qualitative study centered on two workshops[4] (n=12 participants) in September 2022. The key goal of the workshops was to bring people from different areas of expertise (i.e., climate change, energy, marketing and place branding) to identify the diverse opportunities, solutions, and challenges in addressing climate change at the city level in Canada. Participants included professionals who worked in (n=11) or for (n=1[5]) four cities in Ontario, Canada: Toronto, Hamilton, Guelph and Kingston. We reached out to city staff and others from these four cities (and others who could not participate) because they had all declared a climate emergency as of July 2022. Note that each city's CED was used as an eligibility screen for this study and not as a source of data to be analyzed in and of itself.

For the workshops, we employed a decision theatre (DT) format [37]. DT was developed in the 1970s and is used across multiple disciplines including behavioral and social sciences, military, research, and education to solve complex issues via deliberation [38]. The DT method has recently been used by researchers in the UK studying low carbon transitions and entrepreneurship who write the method "provides a framework for participatory, discursive, and qualitative decision making" [39]; p.2; see also [40]). As was the case in our study, DT is typically used as a tool to build off the collective expertise that workshop participants have [38] and helps in considering decisions, reaching pragmatic understandings and making judgments based on consensus. To do this, in the first half of each workshop, we asked participants to present three to four climate change solutions their cities have found value in following their CED. In two subsequent rounds, participants were then each asked to 'vote' for their top solutions and explain why they did so. Participants had the option to 'vote' for their own solutions or the solutions presented by others. In the second half of each workshop, this process was repeated for the challenges that cities have faced following their CED. To encourage discussion across a range of issues, participants were told specifically to speak to any intersecting issues (i.e., of climate change and place branding) they found important. Each workshop was audio recorded, transcribed into a word document, and then imported into NVivo 12 software for help in the organization of data analysis [41]. While the workshop transcripts were the main source of data for this project, we also took photographs and screenshots of what participants were writing down in terms of their city's or organization's solutions and challenges. To protect their identity, pseudonyms were given to each participant. Ethics approval was provided through Dalhousie University and Middlesex University.

Shaped by our understanding of the literature, the workshop data was analyzed the via thematic analysis. Thematic analysis refers to searching a set of data to determine, examine and document

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[4] To accommodate the preferences of all, one was held online and the other in-person, on the campus of Toronto Metropolitan University

[5] The only participant who was not working for a city at the time of the workshops was from an environmental non-profit organization that supports cities across Canada in their climate change efforts

common themes and patterns [42]. Thematic analysis also encompasses pliability in transcribing and analyzing data, making it appropriate when analyzing interviews and workshops that seek to gather peoples' thoughts and beliefs [42,43]. While staying close the literature, we used a grounded theory-based approach to analysis, where the identification of themes (i.e., actions relating to as climate change, place branding and public participation) came through inductively [42,44]. Through this, there was four distinct stages of analysis, including i) initial listening, reading and note-taking [45,46], line-by-line coding [42,47], iii) searching for reoccurring thematic patterns, and iv) assessing and evaluating the generated list of themes [46]. Through meetings that involved all authors, we took an approach to identifying, synthesizing and harmonizing all information provided to our team through each participant. This resulted in the presentation of findings, seen in Section 4 below.

4. Results

In this section we present our study's results, represented through both a summary of conversations, and direct quotes, taken from the two DT workshops (n=12 participants). We first present the results relating to cities' climate change solutions. Included here are the three main solutions that participants agreed on (see 4.1) and one more solution that were not agreed by consensus, but we feel they are still important in terms of the major themes we are interested in. These solutions include targets and action plans (4.1.1), the importance of collaboration (4.1.2), sharing information with communities (4.1.3) and the importance of [inclusive] planning (4.1.4). In 4.2, we turn to the main challenges cities are facing. Key challenges include: diversity of city staff (4.2.1) and getting the message out (4.2.2).

4.1. Post-CED climate change solutions

Participants were first asked to list, deliberate and vote for a set of climate change solutions that their cities have found to be effective after making CEDs. At the end of this round of discussion, the two groups came to a consensus around three key solutions: i) targets and action plans, ii) collaboration and iii) sharing information with communities. For a list of all solutions presented by city/organization, see the actual images from the workshops in Appendix.

Table 1. Solutions post climate emergency declarations.

City/Organization	Solutions
Toronto	Set targets of reaching net zero by 2040 instead of 2050
	Developed and approved of an electric vehicle strategy
	Developed and implemented an active transportation plan
	Placed hundreds of electric vehicle charging stations across the city
Guelph	Set clear targets and objectives
	Establish a measurement process to track and share progress
	Implement energy conservation and GHG reduction measures and share information on them

City/Organization	Solutions
Hamilton	Community energy and emission plan with set targets
	Communicate who owns what
	Set mantra of efficiency
	Created a multi-department and stakeholder committee
	Identified greenhouse gas emissions
	Created the "Recharge Hamilton" plan
Kingston	Reduce greenhouse gas emissions by 15%
	Launched a climate leadership plan
	Purchased electric transit and light duty fleet vehicles to achieve 7% corporate GHG reduction
	Launched Kingston community climate action fund
Name removed (ENGO)	Partnered with non-profit organizations to support communities with climate emergency plans (CEPs)
	Created public targets
	Implemented CEP and measured progress
	Updated and created climate action plans for various communities
	Support and participate in climate action marches

4.1.1. Targets and action plans

All participants agreed that setting targets are an essential first step to encourage local residents, businesses and the city itself, to act on climate change. A representative from Kingston shared that they have set an overall target to reduce greenhouse gas emissions by 15%. They have also set a more targeted goal of reducing emissions from their corporate fleet by 7% through the purchase of electric transit buses and light-duty fleet vehicles. Within this program, city staff are using marketing and branding tools to share the news of the program and help encourage people to go electric themselves, placing stickers and green stamps on their electric vehicles.

A participant from Guelph shared that their city has also made emission reduction targets and have worked hard to make these objectives clear for everyone. In the workshops, they stressed the significant effect of public contributions to greenhouse gas emissions (i.e., lifestyles). They argued that setting targets would not only make the city's objectives transparent, but would also help educate people, and other local stakeholders about their roles in addressing climate change. A quote from "Sean" summarizes the importance of setting targets and making them public because "we can't be in people's bedrooms to turn off the lights" to reduce emissions at the community level.

Sean (City of Guelph): "Um, I think, on the targets and objectives, though specifically too. I think it's good to have that kind of common goal um, and so that everybody kind of knows you know it's a quick one-liner, that people can just say, 'Hey, Okay, 100% renewable.' It speaks about energy. It speaks about, well, trying to put in that conservation side of it, too, and I'm always saying it's a conservation first approach to get one 100% renewable, or even our community net zero carbon. So it's something that people can kind of focus in on, on that one thing… So kind of positioning and understanding and mapping out (our targets) is important".

Jennifer from the City of Toronto shared that the city has developed a Net-Zero by 2040 target. This was updated from their previous target of Net-Zero by 2050. They have also created a Climate Action Steering Committee that the public is encouraged to public to join and hold the city accountable for their actions in reaching this goal. Like Kingston, Toronto's city council also

developed and approved of an electric vehicle strategy; providing support, tools, funds, and types of infrastructure needed to greatly increase the use of electric vehicles. As part of this transportation goal, a participant from the city stated that they are piloting innovations such as modernizing fleets and implementing the use of electric and hybrid vehicles.

Jennifer (City of Toronto): "The council approved the electric vehicle strategy. So again, my focus is electric vehicles, this is top of mind. [The goal being] uptake, to raise awareness, as well as start to form a strategy of what infrastructure is needed in terms of support, like the expected increased uptake of electric vehicles in later years. So working with Toronto Parking Authority, things like that, hydrogen… so to develop a strategy and it was approved by council. And now it's being implemented, and it looks like it's getting to net zero.

Henry from the City of Hamilton shared that their council had recently promoted targets within their climate action strategy, an updated plan from the originally named Recharge Hamilton. They are shared that Hamilton had developed and implemented a community energy and climate plan and an active transportation plan.

4.1.2.   The importance of collaboration

A representative from the environmental nonprofit stressed the importance of partnering up with groups like hers and other stakeholders. Her organization partners with other non-profits to help communities that have already created climate and/or community energy plan, offering support and aid with implementation. Other participants from several cities agreed with the importance of collaboration with such organizations because they can offer various benefits to both people and cities and help in mitigating climate change. They stated that they will bring forward to councils and their corporations the need for partnership with NGOs. Another representative from the ENGO stated the same; that non-profit organizations often know how to engage with the public and that they are the best advocates for that. We can see this idea expressed through the words of Justin:

Justin (ENGO): "Some local organizations that are already working in climate change. After you've set your policy in the city, I think it's so important to engage citizens that are ready to find ways to support them, whether it's financial, whether they're driving many, getting them in the door.

Speaking to the fact that they have been doing so for the past few years, we learned the local council at the City of Toronto has already partnered up with other authorities and organizations to help meet the goals of net zero in the coming years. Ryan (Toronto) speaks to the benefits of doing so, including the fact that stated that partnering up with organizations would increase support to meet targets and goals set by the city.

Ryan (City of Toronto): sought funding to support research and action for local solutions to address climate change. They have supported local organizations that are seeking to tackle climate change through a variety of pathways. They also gathered funds to help support communities using financial capital.

Speaking to the City of Hamilton's climate change plans described in 4.1, Ryan notes that in creating these plans, the city worked with multiple stakeholders, sectors and most importantly the public to ask them for their input:

Henry (City of Hamilton): "So we formed a multi departmental stakeholder as well as multiple advisory committees. And so, [researcher name], I really like you're saying, too, about the procedural justice, restorative justice, and distributive justice, to try to get those voices around the table for that

stakeholder committee and being a public [committee] helps to be really focused on evidence-informed decision making".

4.1.3.   Sharing information with communities

It was evident that across all the solutions presented, sharing results, progress, and initiatives with the public is seen as a vital step. The non-profit workshop participants described their tendency to work with communities that have little to no background knowledge on climate change initiatives, so their first step was to educate these communities and help generate community energy plans (CEPs).

Mary (ENGO): "So when we're working with a community, they don't typically have a ton of capacity or necessarily the backgrounds in energy or climate change, or in, you know, understanding how to get to net zero. So they do typically well. All the partners that we work with have partnered with us, a nonprofit energy organisation to help support through the process of creating a CEP… So that's typically um. You know one of those first steps".

To help share information with local residents following their CED, the City of Kingston has launched its Kingston Community Climate Action Fund; this program is used to educate and encourage and the people of Kingston to make donations toward green projects. The city has also launched a Climate Leadership Plan that encourages local communities to work alongside other stakeholders to help reach climate goals by 2040. This plan presses on the importance of letting the community know about its "call for projects" and that the city can help raise funds for such climate action projects.

Khloe (City of Kingston): "There's also a climate leadership plan which is kind of beyond the count, the term of council, and more community focus. So two things I just wanted to highlight that I think are kind of related to my world is that every year there's a call for projects from the community. And then we, as the city, fundraise for those projects to help those non-profits get a green vehicle, create something that's related to offsetting for climate action. So, I think that's something that I'm involved with, because I'm actually raising the money through the community".

Participants from the City of Guelph shared that they have been exploring EV initiatives to implement at the corporate (city) and community levels. They are doing so to help with emission reductions–sharing this information to help "lead by example". Their thinking being that people are more likely to purchase EVs when they are both educated about them and simply when they see that electric vehicles are used by the city. As Sean described, the City of Guelph seeks to share all of its projects, ideas and goals with the public to educate and encourage people about greener and low-carbon lifestyles.

Sean (City of Guelph): "[We share information about] energy conservation, GHG reduction, so there's this kind of you know, lead by example… I prefer to take more of a 'These are the things that we're doing, and we want to share it with other people.

Our workshops also revealed that a key part of sharing information with communities may be communicating "who owns what?" in terms of energy, transport, heating, and associated emissions. Doing so, participants argued, would help better educate the public and other stakeholders about their own personal or corporate emissions and ways to limit them. A discussion between Tyler (City of Hamilton) and "Sean" (City of Guelph) showcases an example of this consensus that was agreed upon by nearly all participants.

Tyler (City of Hamilton): "I think, important to communicate 'who owns what?' Where do you belong as a residential or as an industrial [stakeholder]? And what exactly is the quantity of emissions you have to mitigate, you know? Sort of, What's the challenge for your sector? And it couldn't be more important than a city like Hamilton for the community, because our industrial emissions are so massive over sixty percent of our mission profile comes from the industry, and being a steel town, it's absolutely paramount that the emissions from industry gets addressed. So that's a really important point to be communicated".

Sean (City of Guelph): "I do like [Tyler's] thing too and I'm gonna jump on that to, that. 'Who owns what?' Because everybody latches on to energy and climate change in those terms. But they don't think that they're different for different people or different organisations, and the attachments and the involvements to that. And that's where we're at right now is as we've had, and I always say this the community for the municipality of the city of Guelph is kind of going through an identity crisis with that community energy part."

Part of sharing information, all participants stressed the importance of tracking progress and letting the public know about such progress. Doing so, they argued, would help determine whether new programs, policies, and projects are actually creating a positive change. A representative from the non-profit in particular really pressed on the importance of this idea. After the support, education, and implementation of CEPs, they track and measure the progress of the communities they are working with to encourage them to go forward with their plans to mitigate climate change. The City of Guelph has placed measurement processes that track climate progress, sharing with corporate stakeholders and the public. As Sean shares:

Sean (City of Guelph): "People need to understand, as we're making these changes, are we actually making a difference? And we we've committed to having our GHG inventory done annually, putting that out to the public, and having it third-party reviewed as well. So people can see the graph take this roller coaster ride, but also kind of see, 'hey if we keep on going, we're gonna see this gradual trend downward".

4.1.4.   The importance of [inclusive] planning

While not in the final list of consensus solutions, there were some mentions of the ways in which planning tools, including by-laws and green building standards, can play important roles in addressing the climate crisis at the local level. John from Kingston argued that when developers are required to develop in more sustainable and green ways, emission reductions will occur. Another participant, Jennifer from Toronto stated that since their CED, they have used bylaws and green building standards to help deploy hundreds of EV charging stations across the city. They also used these tools to create district energy systems for new future developments, and infrastructural improvements for existing ones. Jennifer describes the importance of these tools as policies that require projects to be built in certain ways, rather than simply trying to encourage it, where they become things "that would be nice to do".

Jennifer (City of Toronto): "Like having different bylaws and green building standards, like making it up as a policy, instead of just like 'this would be nice to do'. You have to do that because it comes in building and stuff like that people are just going to try and make money".

Most workshop participants also stated there is a significant need to focus on Black, Indigenous, and other People of Colour (BIPOC) and other marginalized groups during climate action, including

through planning exercises. This is because planning for, and helping marginalized groups, would in turn benefit the city and wider community as it works toward successful climate mitigation and adaptation. Ryan from the City of Toronto stated that they have recently shifted their strategy, turning to a focus on climate action and engagement that is marginalized people including people of color, and Indigenous peoples, and aid those who are in need of recovery from the Covid-19 pandemic.

Henry (City of Hamilton): "So I hope and also, I think it has long-term benefits and also additional benefits of helping those more vulnerable. We'll also have additional benefits beyond there that will also galvanize the community, I think, together to take further climate action on that one".

4.2. Post-CED climate change challenges

In the second half of each workshop, participants were asked about the challenges their cities are facing regarding acting on climate change in the wake of their CED. As with the solutions, they were each asked to first list and explain three to four items, vote for explain their favourite two, then finally vote for and discuss their final choice. Here, we made it clearer to participants that we wanted them to think about challenges that may relate communication strategies, including elements of place branding. Table 2 below displays all the challenges cities and organizations faced post climate emergency declarations. The two challenges that participants agree with were the most important–getting the message out (4.2.1) and diversity matters (4.2.2)–are discussed in more detail below.

Table 2. Challenges post climate emergency declarations.

City/Organization	Challenges
Toronto	Need capital to deploy plans and projects
	Convincing communities about the severity of climate change and that it is "worth tax dollars"
	Dealing with "conservative" councils that tend to slow down plans
Guelph	Archaic communication engagement strategies beyond the use of social media
	Lack of community understanding pf climate change
Hamilton	Decision-making on capital with climate change as priority; explain what is spent and why
	Lead community-led efforts to results
Kingston	Having a diverse staff who reflects the community
	Starting on solid research before embarking on a plan
	Teaching staff research techniques
	Creating a culture of public engagement
Name removed (ENGO)	Need more engaging strategies "think outside the box"
	Lean on external expertise and developed best practices
	Learning from other successful similar sized communities
	Need more engaging strategies "think outside the box"
	Lean on external expertise and developed best practices

4.2.1. Diversity of city staff

Khloe a participant from Kingston, stated that in their case, there is a lack of diversity at the city and that addressing that problem may help in 'mirroring' and considering minority and marginalized peoples in the work they do–on climate change and beyond. To help with this, she also stated that more diverse staff from different departments should merge and educate one another about new techniques on how to help in climate change mitigation, including how to brand it at the city-level.

Khloe (City of Kingston): "So we all have issues with bias, and we have a lack of diversity within the staff. So, I think, trying to make sure that we have people who work at the city who reflect the community. They'll do a better job, actually reflecting the needs of the community, and knowing what questions to ask".

All workshop participants stressed the importance of diversity among various stakeholders and city departments to tackle climate change more efficiently. Though when it comes to actually getting together and collaborating, Tyler from Hamilton and Sean from Guelph both described their lack of comfort and perceived barriers that are preventing analysts and engineers working with communications staff.

Tyler (City of Hamilton): "I would much rather just stay focused on the stuff that I know I can be good at and let somebody else do the marketing. Now we're in a community where we would expect that to be done by somebody else, but maybe the groups need to work a little closer together to make sure that it's effective. But I don't know. I don't know how to make the public more, or you know, manage that I seriously, I would want better communications effort put in place by others. I just don't see that as my job in a very serious way, like I'd love to see it be more effective. But tell me what you want for me, and I'll help. So really that's all I got.

Sean (City of Guelph): "I like it. So, we have a communications and engagement department here in the City of Guelph, right? So, I've been here, I guess, just over six years now, which is hard to believe. I remember entering the door, and kind of what Tyler was saying, like 'we're projects people we're trying to get numbers done, like I'm an engineer. I know nothing about communications. I can't write, worth my life so, you know I really pushed on them to kind of ask. Hey? You know I need you, need your support, and we're getting over the hump only now, and I want to go beyond just what that support is. It's not just copywriting. It's not just, you know, 'here's a template. You fill it out'. It's, I need somebody to develop a campaign and a strategy and help with implementing it and implementing it effectively…we want to get our message out, and we know the information, but we don't know how to communicate it…That's something that I think is really needed here".

Yet upon hearing this discussion and perceiving the struggle that Tyler and Sean were describing as being a problem inherent to communications staff, Khloe (City of Kingston) expressed her anger, wishing she could "get her boxing gloves on":

Khloe (City of Kingston): "I wish I was in person because I get my boxing gloves on, but we'll be more civil on Zoom…I think sometimes the bit of the rub is that I, as a marketer, would say to you, why should anyone care what you're doing? And that is a tough question because it makes people bristle right. It's like well, 'of course, they should care because I care'. But I think, having a relationship whether it's…. you know me and someone else, or someone from a team to be able to have those discussions and say, 'yeah, like, why should a single mom who has two kids, who can barely pay her rent, why should she care about GHG emissions?' And I think being able to have

those curious conflict conversations can almost help have a team approach where it's not, you saying, I have all this work, and I need you to promote it, but maybe have".

In addition, Khloe explains that from her view, departments who work for the city should have experts from different backgrounds to better communicate and reflect the needs of people. That is, she wishes for changes that would increase diversity within departmental teams to help facilitate more effective discussions with the public.

Khloe (City of Kingston): "So we all have issues with bias, and we have a lack of diversity within the staff. So, I think, trying to make sure that we have people who work at the city who reflect the community. They'll do a better job, actually reflecting the needs of the community, and knowing what questions to ask, and I think also giving staff the tools, I will say we, not me, but my colleagues have done an amazing job… Because if we're garbage in and garbage out on data collection, it's not really going to help."

4.2.2. Getting the message out

Finally, all participants agreed that a key challenge for their city or the cities they work with, was sharing key messages with a wide and representative population. Mary (ENGO) stated that when working for communities, especially smaller ones, it is quite difficult to 'get the message out' or communicate key climate messages with such people. She shared the view that that their organization, and cities themselves, need to find more ways that make public engagement sessions more interesting in order to gather input from more people, instead of the "handful of most engaged citizens".

Mary (ENGO): "For me when I'm reading through some of the work that we do with projects, it feels like sometimes, smaller communities in particular have a difficult time getting the message out of the general public, like a few people have already mentioned. But how do you have, like, that handful of your most engaged citizens, who always attend council, but it's like, how do you get out to those folks who might be really interested, but who aren't paying attention to that [climate change] landscape."

To help address this problem, Tyler the City of Hamilton, stated that it is important to use public capital for climate mitigation and educate the public and stakeholders on why these investments should are needed. He also shared that Hamilton has experienced some trouble keeping communities and the public engaged. A key challenge for them is keeping the public engaged without "bombarding on climate change messaging". While realizing what they need to do, they state that the city of Hamilton often falls victim to negative messages instead of positive messages that would likely better encourage people to reduce emissions:

Tyler (City of Hamilton): "We need to keep the public engaged without bombarding on [negative] climate change messaging for every storm or heat event that occurs… Let's communicate and highlight those community lead activities and make sure we're showing results good, bad or different… I think we have to be selective on when we communicate about climate change, and at least in my opinion, I think we do. And, you know, there's a positive way to talk about what we're doing. There's a positive way of showing what we're doing… I think there's a positive way of communicating that we don't want to slip into this trap of just reporting negative news for the sake of it. Um. And so for me, I'd be more inclined to talk about, you know, what are the actions that we're

doing? What are we doing to mitigate things? What are we doing differently on the adaptation side and keep the messaging to that.

In a similar way, Sean from Guelph stated that the city's communication strategies are very outdated and need to be updated, beyond the use of social media. He shared a belief that people often want to receive quantitative data without fully understanding the complexity of the issue. He hopes that by exploring different and more diverse communication strategies, that they can better help educate the local community:

Sean (City of Guelph): "I think our communications are archaic, and maybe this is part of that diversity thing. We need to consider, you know where our youth spend their time, and how they consume information? How do our seniors consume information? Those that are the 'have-nots' and the 'will-nevers' for the digital divide. And the forms of the media that are effective to get the information across, but also the message in itself. So, what makes it, really hit to the core of people to understand what climate change means? We're working with our communications group to I'm hoping that we can kind of have a bit more risqué tongue-in-cheek messaging and saying, 'hey, you know, like, if you guys want to everybody loves hockey, you want to skate…'".

5. Discussion

Urban communities around the world are both the setting for climate disruptions and a large cause of these problems, soon to be responsible for over three-quarters of all greenhouse gas emissions [7]. To help mitigate and adapt to climate change, governments all around the world have made climate emergency declarations (CEDs). CEDs are new forms of action from governments that arose to emphasize the importance of climate change and action at a local level [8].

Yet since CEDs are relatively new to Canada in particular, first arising in just 2019, we can find no research completed as to what Canadian cities have done since making these declarations, including whether novel engagement strategies and participatory place branding, may help. What little we do know is that in the worst case, CEDs may only be 'political gestures' to help make governments look good, nationally and internationally [18]. Here the argument is based around an initial, yet-to-be-fully-tested idea that declarations do not offer any fundamentally different approaches to climate change compared with the status quo [18]. This aligns with some more general recent research that states governmental polices and decisions are not enough to mitigate climate change [3]. Rather, the public play an important role as well. Encouraging communities to support and embrace measures to combat climate change can also aid in efforts made by other parties, including governments, to manage and address significant environmental challenges [3]. Yet the best solutions to climate change at the city level likely require 'all hands on deck', that is, collaboration and networking between a range of different stakeholders [10,11,48,49].

Based on our research from Canadian cities presented here, CEDs were far from being merely political gestures. Instead, the declarations seem to significantly 'push' Canadian cities to reach their climate change goals. Cities like Hamilton, Toronto, Guelph and Kingston–as well as our non-profit participants–have all have created, or helped to create, strategies, targets, and plans to address climate change, especially in terms of mitigation and emission reductions. The cities and organizations represented through our workshops all emphasized the importance of collaboration with other governments, stakeholders, and especially the public. This is very similar to research

published by Gustavsson and Elander [10], Heikkinen [11] and Zhu et al. [3], where authors stressed that collaboration among different stakeholders can be a great tool in fighting climate change.

Previous research from Howarth et al. [18] and Ruiz-Campillo et al. [22] suggests that in most cases, the public were the main driving forces that pushed governments in Canada and elsewhere to make CEDs. While we did not investigate why cities declared these emergencies in the first place, our results do show that local communities have very significant roles in what happens after CEDs are made. Our participants understood this and, acting appropriately, with all of them stating that targets, progress and programs will not only be shared with and targeted toward the public, but local residents will also play important roles in helping to shape these initiatives in the first place.

Analysis suggests that participatory place branding can help in addressing climate change at the city level. Especially when given the opportunity to leverage their boundary-spanning and meaning-making function as cultural intermediaries, place branding professionals can influence climate action policies and impact communication and citizen engagement in many different ways [50,51]. By including local communities in the process, place branding may help create public awareness around a range of societal, economical and environmental issues, encouraging them to take pride in their city and act in climate change. Place branding and other participatory engagement strategies outlined in this paper may also help in encouraging collaboration various stakeholders, the government and the public. Based on our research focused on the actions taken post CEDs, such collaborations can increase both local residents' education of, and the number of resources devoted to, climate change.

Based on our reading of the literature and research presented here, we believe that participatory place branding can help in creating clean, green and positive images for cities and may also help in the sustainable growth of cities. The most direct pathway to this sustainable growth can be seen when cities are modelled as 'green', low-carbon and/or climate friendly and relevant stakeholders (i.e., businesses) become more likely to invest in, and locate to these cities [52,53]. That kind of trend was clearly visible in the case of the city of Glasgow, Scotland and their journey to simultaneous sustainable growth and place branding. This set a foundation where people began to take pride in their sustainable city and moved towards adopting more sustainable lifestyles as a result.

Our participants, including those from the City of Toronto, and the City of Kingston, shared that they are investing in a range of sustainable and green initiatives including energy districts, electric vehicle charging stations, electric vehicle fleets, sharing these programs and projects through multiple avenues, including what some might call a place brand. Yet exciting as these early results are, more research is needed. We call for more research specifically focused on the interaction between climate change action, progress toward emission reduction goals and place branding strategies. Included here would be a comparison of cities' actions and their relation to the actual content of their CED. This research used cities' declarations of a climate emergency to determine their eligibility within our study but did not investigate the structure of content of each CED to any great extent. A study specifically focused on elements of CED structure (i.e., timelines, obligatoriness) would likely illuminate some important insights.

We hope that the major takeaways from this research can help cities across Canada on their journeys to successful climate change action at the local level. Our participants stated that it is important to learn from other cities to address key challenges and adopt policies that make their cities more sustainable and able to address the climate crisis. Further, while recognizing important cultural, political, and socio-spatial differences, we believe there is some promise in that cities worldwide can now learn from the results shared here and use participatory place branding as ways to attract

investments and promote collaborations among different stakeholders, the government and most importantly, local residents. Finally, we hope that this work will help establish a foundation for this kind of future work around the world, bringing together a global and interdisciplinary cast of researchers to study these trends in diverse national and urban contexts.

6. Conclusion

Given the surprising lack of research in this area, our goal in this study was to report on what cities in Canada are doing after they declare climate emergencies, with a focus on the solutions and challenges they are facing. We found that these CEDs are a driving force, helping Canadian cities mitigate and adapt to climate change. The top solutions made in Canadian cities post-climate emergency declarations were creating targets and action plans, sharing information with communities, and collaboration. The top challenges facing the Canadian cities we spoke with included the diversity of city staff and getting the message out. Our investigation into the potential role that participatory place branding may play was encouraging, showing some signs that the embedded amount of collaboration, community involvement and encouragement of sustainable lifestyles/investments can make a difference.

Use of AI tools declaration

The authors declare they have not used Artificial Intelligence (AI) tools in the creation of this article.

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Conflict of interest

The authors declare no conflict of interest.

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