



# **Sustainability Justice in the Context of Municipal Climate Action Planning: Key Consideration**

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**Viessmann Centre for Engagement and Research in Sustainability (VERiS)**

**Prepared by:**

**Jennifer Dobai  
Manuel Riemer  
Bianca Dreyer**

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## Executive Summary

This report was created for the purpose of reviewing the literature and existing case studies in support of municipal climate action planning teams that are interested in fully integrating sustainability justice (SJ) into their planning. Using a sustainability justice lens means working towards a “better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems” (Agyeman et al., 2003, p.5). While - in principal - sustainability as a concept includes clear links to social justice and most actors working in this space embrace values of equity and accessibility, in practice opportunities to create co-benefits and change systems more holistically are often missed, while in other cases it actually exacerbates existing inequalities or produces new ones. Thus, there is a growing realization among decision-makers, practitioners, and scholars that the integration of these considerations and values needs more attention and to be much more intentional and purposeful throughout the planning and implementation process. As one prime example, there tends to be a lack of representation of members of equity seeking groups within key planning and decision-making committees.

Creating and implementing climate action plans (CAPs) with a sustainability justice lens requires SJ concepts to be integrated throughout all planning stages, the plan itself, and its implementation and evaluation. Ideally, it becomes a central aspect of the CAP, rather than an added consideration. In this context, SJ takes on many forms, such as justice through distribution of benefits and burdens (e.g., the benefits of subsidies), capabilities (the ability for people to meet their needs), recognition (recognizing people’s membership of the moral and political community), participation (e.g., control over the planning process), and history (e.g., broken treaties with Indigenous communities). Ideally, climate action planning will seek to address all of these dimensions of SJ in partnership with and alongside equity-seeking groups. Relevant equity-seeking groups include low-income individuals, racialized groups, immigrants, people with disabilities, people experiencing homelessness, Indigenous people, 2SLGBTQIA+ and gender-based, youth, and workers affected by sustainability transitions (e.g., those working in the fossil fuel industry). These groups experience significant collective barriers in participating in society and bear the burdens created by environmental destruction and sustainability solutions. CAPs developed through a SJ lens will work towards preventing existing inequities from getting worse, while also seeking specific ways to ensure these equity-seeking groups participate in the benefits of the changes being implemented, such as reduced utility costs from placing free solar panels on low-income housing.

SJ can be integrated into all stages of municipal climate action planning: the overall framing (e.g., mandate, mission and value statements), process (e.g., through representation and participation), implementation including approaches and strategies to change (e.g., free installation of solar panels for low income housing), and evaluation and assessment (especially impact on equity-seeking groups). The framing of CAPs is particularly important as it will shape the process, tools, and assessments used. CAPs framed with SJ at their core are holistic, intersectional and have a clear focus on environmental sustainability, social justice, and equity. A process informed by SJ is integrative, inclusive, and equitable with a diverse range of stakeholders, especially equity-seeking groups. It seeks to meaningfully engage equity-seeking groups and redistribute bargaining power (e.g., agenda setting) and control over the narrative. A variety of tools and approaches for the integration of SJ are available from empowerment



approaches to sector specific tools (e.g., energy and transportation). Lastly, to ensure the process and outcomes of the CAP are in line with the framing, equitable evaluation and assessment with a SJ lens is needed. This means using/creating evaluation and assessment tools that have indicators of sustainability, social justice and equity. In addition, it is important to ensure space and time for individual and collective reflections as this integration process and the engagement with equity-seeking groups will be an ongoing learning process.

There are already a number of cities and municipalities integrating SJ considerations into their climate action plans, including Amsterdam, Barcelona, Cape Town, Portland, Sydney and Toronto. Key insights from these case studies, such as the need for inclusive processes, are being shared in this report.

Based on the literature review, the following recommendations have been made:

- Ensure that early in the process, the CAP and planning is framed with the dimensions of SJ as it will determine the process, approaches and tools to change, the evaluation/assessment and what will be possible later.
- Identify past, current and future sustainability injustices based on the dimensions of justice for each equity-seeking group and ensure the CAP address these injustices.
- Ensure meaningful engagement, participation and feedback for all equity-seeking groups at each stage of climate action planning.
- Ensure the process is inclusive and integrative by including a diverse set of stakeholders while proactively addressing issues of governance and power that may arise.
- Create and use approaches, strategies and tools for change that are just so that the benefits and burdens of CAPs are more equitably distributed.
- Build space and time into the planning process for ongoing reflection and learning.



## Introduction

The intention of this literature review is to capture the current state of knowledge in regard to considerations of sustainability justice (SJ) and how it applies to municipal climate action planning. This was not conducted as a systematic literature review but rather as a rapid review focusing on the most relevant literature for the work of municipalities who are interested in integrating more meaningful considerations of justice and equity into their municipal climate action planning. We consider this a living document that will expand and improve as we receive feedback from a variety of stakeholders. Please also note that this review is mostly targeted towards municipalities. We recognize that there are other types of local authorities, especially in the Canadian North, which require different as well as related considerations but are not the focus of this current review.

We will first briefly introduce the concept of sustainability justice (SJ) followed by a discussion of how it applies to municipal climate action plans (CAP). We will then review literature relevant to specific aspects of SJ and CAP, including dimensions of SJ, equity seeking groups, framing, process, and approaches and strategies to change. We will conclude with a presentation of several case studies and the key insights that can be drawn.

It is important to note that this report is based on the assumption that, in general, most municipal actors are interested in including considerations of sustainability justice in their local CAP but either lack capacity, expertise, and tools within their organization to do so or face external constraints, such as provincial or federal regulations and policies or limited funding mandates. We hope this review can be used to strengthen local capacity and become a tool that can be leveraged to advocate for better conditions for local actors to meaningfully address social justice and equity in their climate action planning.

## Sustainability Justice

Sustainability justice (SJ) is used to describe sustainability-fitting justice conceptions, that are inter-and intragenerational across both humans and non-humans (Stumpf et al., 2015). This builds upon the work of Agyeman and colleagues, who use the term *just sustainabilities* to highlight “the need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems” (Agyeman et al., 2003, p.5). To aid in the understanding of what sustainability justice is, and how it relates to policy, planning and practice, we will first consider its development.

There are diverse and, at times, conflicting views over what ‘*sustainability*’, and its counter-part ‘*sustainable development*’ really mean (Agyeman et al., 2002; Salkeld, 2016; Schlosberg, 2007). The most cited definition of sustainability is “to improve the quality of life while living within the carrying capacity of ecosystems” by the International Union for the Conservation of Nature (1991). Similarly, sustainable development refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, p.43). While these definitions have similar aspects to just sustainability, a core aspect, equity, is missing, at least in an explicit way. Agyeman referred to this as the ‘equity deficit’, suggesting sustainability and sustainability solutions have been narrowly focused on ‘green’ or ‘environmental’ aspects, (2005, p. 44). This is further highlighted



in the New Environmental Paradigm developed by Catton and Dunlap (1978), which precedes the Environmental Justice movement. Originally, this paradigm stemmed from a movement in the seventies which aimed at addressing environmental problems and recognizing the reciprocal relationships between societies and their environments (Agyeman, 2008; Dunlap & Catton, 1994). While it addresses intergenerational equity, it lacks focus on intragenerational equity - “equity or just now” (Agyeman, 2008, p. 752). Additionally, the sustainability movement has been predominately white, educated, middle or upper class (Agyeman, 2008; Camacho, 1998), thus sustainability as a concept in itself is not sufficient enough to transition us towards just sustainabilities.

While the environmental sustainability paradigm and movement lacks equity as a core concept, the Environmental Justice Movement and Paradigm (EJP) has largely been the foundation for sustainability justice (Agyeman & Evans, 2004). While there are a variety of reasons for that, a key one is that environmental organizations emerged from grassroots or bottom-up activism in the Civil Rights Movement (Agyeman, 2008). EJP was framed around concepts such as “autonomy, self-determination, access to resources, fairness and justice, and civil and human rights” (Taylor, 2000, p. 534); EJP integrated class, race, gender, environmental and social justice concerns (Taylor, 2000); and, it went beyond the scope of distributive justice, to include conceptions of justice through recognition, capabilities, and participation (Schlosberg, 2007). Additionally, because the movement was led by racialized, low-income groups, it created an accessible paradigm that similar, disproportionately affected groups could identify with (Agyeman et al., 2002). It is important to note that women, especially women of colour, dominated the movement, representing approximately 70 percent of activists in local and state organizations (Bell & Braun, 2010; Russo & Pattison, 2014; Verchick, 1996). Although both movements (sustainability and EJP) were centered around the environment, they vastly differed in the way they were framed, and who they were led by. This divide can be seen at an international level, where higher-income countries prioritize a ‘green’ agenda, in contrast to lower-income countries who prioritize a ‘brown’ agenda focused on health, education, and poverty alleviation (Agyeman, 2008). Another movement worth noting is the climate justice movement which has similar ideologies to the EJP and is arguably the present-day movement. Climate justice is considered a moral and political framework that focuses on the root causes of climate change while creating systemic change that places fairness, social justice and equity at the forefront of all climate-related activism and policy (Perkins & Sers, 2019; Saad, 2017).

Therefore, just sustainabilities is positioned as the middle ground or bridging between these two paradigms, focused on equity and justice, within the supporting limits of our ecosystems. It operates on four essential conditions, “1) improving our quality of life and wellbeing; 2) meeting the needs of both present and future generations; 3) justice and equity in terms of recognition, process, procedure, and outcome; 4) living within ecosystem limits” (Agyeman, 2005, p. 92). As we can see, these conditions are influenced by the environmental sustainability and environmental justice paradigm.



## Sustainability Justice and Climate Action Plans

The rising global challenges of climate change, financial crises, food price volatility, rising populism and racism, and global public health crises such as the COVID-19 pandemic, are driving the recognition that these issues are unavoidably interconnected and must be addressed together (Raworth, 2012; Speth, 2008). Municipalities and other types of local authorities play a critical role in addressing these issues, as well as reducing greenhouse gases (GHGs) across multiple sectors (Guyadeen et al., 2019). This is especially true in cases like that of the U.S. where climate action planning falls onto state and local authorities because at the national level they backed out of the Paris Agreement (Pattison & Kawall, 2018).

To address these issues, municipalities are developing comprehensive community and/or corporate CAPs (Guyadeen et al., 2019; Schrock et al., 2015). A CAP describes a set of policies and programs aimed at reducing GHG emission by non-nation actions, such as mandates to generate renewable energy, reduce energy use, and cut transportation and waste management related to emissions (Boswell et al., 2012; Davoudi et al., 2009). Many of these CAPs are more narrowly focused on technological solutions and climate mitigation rather than also addressing adaptation, social justice and equity (Finn & McCormick, 2011; Pearsall & Pierce, 2010; Russo & Pattison, 2014; Saha & Paterson, 2008). Even in adaptation CAPs, inequity is seen through a “dual process of favoring certain privileged groups while simultaneously denying resources and voice to marginalized communities” (Anguelovski et al., 2016, p. 27). Additionally, a majority of CAPs use a top-down approach and are led by White, well-educated, able-bodied, middle and upper-class individuals (Pearson & Schuldt, 2014; Phadke et al., 2015). While many cities make use of a sustainability-oriented discourse, the implementation of sustainability ideals in planning processes is often descriptive and symbolic in nature (Krueger & Gibbs, 2007). As mentioned earlier, this highlights an ‘equity deficit’, hindering a transformation to a just sustainable society (Agyeman, 2005, p. 44). However, it is important to note meaningful progress has been made since the earlier reviews cited as many municipalities have taken important and meaningful steps towards framing their CAPs with social justice and equity as a core focus, and started to find ways of integrating sustainability justice into their planning (C40 Cities, n.d.; Canadian Urban Sustainability Practitioners, n.d.).

Climate inequalities exist within and between countries with marginalized and racialized groups being disproportionately affected by environmental hazards, climate change related events, as well as not receiving an equal benefit in sustainability solutions such as subsidies (e.g., feed-in tariffs) or reduced energy costs from using renewable energy sources (Anguelovski et al., 2016; Geneletti et al., 2020; Islam & Winkel, 2017; Russo & Pattison, 2014). It has also been found that countries with greater inequalities in income distribution as well as fewer rights and civil liberties, tend to experience poorer environmental quality and worse social and environmental problems (Agyeman, 2008; Russo & Pattison, 2014; Wilkinson & Pickett, 2012). As Agyeman (2008) remarks “from global to local, human inequality is bad for environmental quality” (p. 752). Wilkinson and others (2010) argue three reasons why greater equality is necessary: “(1) inequality drives competitive consumption, or the desire for materialistic satisfaction; (2) cohesion and levels of trust are higher in more equal societies; (3) developing sustainable communities requires high levels of adaptability, innovation and creativity” (Agyeman, 2013, p. 6). Sustainability justice offers a way to address the complex intersections of environmental and social problems through an equity, sustainability and justice lens.





Transformative change, however, requires more than simply integrating SJ concepts; it requires a rethinking of commonly employed processes leading to new ways of city-wide planning. Agyeman (2005) argues “the limiting factor [of sustainability transformation] is the social science, such as ensuring broad participation or communication with a diverse array of stakeholders” (pg. 41). Many CAPs included measures to inform stakeholders about climate change and educate residents, yet limited stakeholder engagement or public participation was facilitated in their creation and implementation (Guyadeen et al., 2019; Li & Song, 2016). Further, due to stakeholder engagement and participation lacking diversity, not enough attention is paid to potential negative consequences of planned changes on other parts of the societal and ecological systems, especially already marginalized communities (Dryzek et al., n.d.). It is essential that climate action planning includes a representative set of perspectives and voices to avoid creating new sources of inequity, and to better meet the different needs and wants of all community members.

Anguelovski and colleagues (2016) suggest four ways climate action planning can confront inequity:

- Facilitate open multilevel dialogues;
- advance equitable adaptation by using scientifically-sound approaches;
- advocate for transformative adaptation interventions that place justice at the center;
- ensure private interests are managed by planners and municipal officials in ways to limit their influence.

Most importantly, a transition to a just sustainability “is one where wider questions of social needs and welfare, and economic opportunity are integrally related to environmental limits imposed by supporting ecosystems” (Agyeman et al., 2002, p. 78). This requires different ways of thinking and planning, and the need to break through the departmental and sectoral silos often present in municipal planning and decision-making.

### **Dimensions of Justice**

There are several different ways to interpret justice, which leads to different conclusions and outcomes (Stumpf et al., 2016; Agyeman, 2013). In sustainability justice, justice takes on many forms, such as justice through recognition (Schlosberg, 2007), capabilities (Sen 1999; Nussbaum, 2000), distribution, participation (Schlosberg, 2007; Agyeman, 2013) and history. These dimensions of justice apply to intra- and intergenerational humans and non-humans (Stumpf et al., 2015), at the international, national, provincial and local level. Schlosberg (2007) argues that distribution, recognition, capabilities and participation are interrelated and interdependent. CAPs and planning should seek to address all dimensions of justice.

**Distributive Justice.** This dimension of justice relates to the fair and equitable distribution of resources, benefits, and burden in regard to current injustices to be corrected, new unintended injustice that planned sustainability changes may create, and new levels of justice that could be reached. For example, low-income, marginalized and racialized groups are disproportionately negatively affected by environmental burdens, such as exposure to toxic chemicals, while also disproportionately receiving less of the benefit sustainability solutions generate such as income from rooftop solar panels (Schlosberg, 2007).



**Recognition.** This dimension of justice relates to “recognizing people’s membership of the moral and political community” (Agyeman, 2013, p. 39), and their character and their capacities within society (Schlosberg, 2007). This includes recognizing the rights of the ‘other’ (i.e., marginalized groups), and invisibility of privilege (Agyeman, 2013). The latter refers to recognizing the dominant or privilege narratives held by the predominately white, middle-and upper-class and recognizing how these narratives influence policy, planning and practice (Agyeman, 2013). The Black Lives Matter movement and the recognition of white fragility among people of European descent are good examples of this dimension.

**Capabilities.** This dimension of justice relates to what core capacities are necessary for the functioning and flourishing of human and non-human life (Schlosberg, 2007). Nussbaum (2000) identifies ten central human capabilities that across many cultures: life, bodily health, bodily integrity, sense, imagination and thought, emotions, practical reason, affiliation, other species, play and control over one’s environment. Holland (2008) also proposed a meta-capability, sustainable ecological capacity, which involves “being able to live one's life in the content of ecological conditions that can provide environmental resources and services that enable the current generation's range of capabilities; to have these conditions now and in the future” (p. 324). However, Sen (1999) argues communities should be in control of identifying their own capabilities since control over life is necessary to justice (Agyeman, 2013). Injustice occurs in a lack of flourishing and absence of specific capabilities needed for flourishing (Schlosberg, 2007). McDermott and colleagues (2013) use the term contextual equity to refer to “the conditions that determine people’s capability to participate to decision-making processes” in terms of the local provisions of ecosystem services (Geneletti et al., 2020, p. 57). An example of this dimension is the right to Free and Prior Informed Consent for Indigenous people concerning the extraction of resources and pollution on their land.

**Procedural Justice/Participation.** This dimension of justice relates to the ability to equitably participate in political, social, and environmental decision-making. Schlosberg (2007) argues, participation is a prerequisite for recognition and capabilities. Meaningful participation goes beyond tokenism and simple consultation but, instead, includes marginalized voices in key decision-making processes.

**Historical.** Lastly, this dimension of justice relates to the ‘wrongs of the past’. It seeks to examine the process in which distributive injustices have occurred, rather than the end-state of distributive justice focused on the equal distribution of benefits and burdens (Feser, n.d.). To work towards historical justice, it is more than redistributing wealth or property, it is about recognizing the ways in which injustices have occurred and continue to occur through similar systems. As Anguelovski and others (2016) highlight, CAPs “must take into account historic legacies of social and racial injustices” (p. 33). Recognizing the past and continuing impact of colonization in the Canadian context is a good example of that. Truly just sustainabilities would include considerations of decolonization.

### **Equity Seeking Groups**

Equity-seeking groups are “those that identify barriers to equal access, opportunities and resources due to disadvantage and discrimination and actively seek social justice and reparation.”





(Canada Council for the Arts, n.d.). Based on the dimensions of justice, the following equity-seeking groups have been identified; low-income, racialized groups, immigrants, people with disabilities, people experiencing homelessness, Indigenous groups, 2SLGBTQIA+, women, youth and workers affected by green transitions. It is important to note that in many cases these are not isolated groups, but they instead overlap and intersect.

**Low-Income Groups.** Environmental problems disproportionately affect the poor in developed and developing countries (Agyeman, 2008). Countries with greater inequalities in income distributions, and fewer rights and civil liberties, tend to have lower environmental quality, and worse contemporary social and environmental problems than countries with more equal income distributions, more political rights and greater civil liberties (Wilkinson & Pickett, 2009; Torras & Boyce, 1998; Boyce, 1999). Low-income groups are not only more exposed to environmental hazards but are more susceptible to the effects of these hazards, often lacking the necessary resources, capabilities, recognition, and money needed to mitigate and cope with them (Islam & Winkel, 2017).

At an international level, developing countries are disproportionately vulnerable to the effects of climate change, such as natural disasters (Islam & Winkel, 2017). Developing countries lack resources to manage disasters, and are less prepared in coastal protection, disaster response systems and victim relief, and recovery assistance (Agyeman et al., 2003). Moreover, due to unaffordability of living in safer areas, a growing population of people are living in flood-prone coastal zones (Islam & Winkel, 2017; Neumann et al., 2015). Municipal CAPs are primarily focused on local impacts and actions of different sectors when considering GHG calculation and reduction. While this is aligned with the mandate of municipal planners, it does not take into account the responsibility local authorities and citizens in wealthy nations have towards those nations more significantly impacted by climate change, such as small island states in the global south, but contributed much less to the factors resulting in GHG accumulation.

Low-income groups in developed countries are also disproportionately vulnerable to environmental hazards, such as air and water pollution (Gochfeld & Burger, 2011). These groups are compelled to either live in industrial areas with contaminated air and/or water all because housing costs are lower or polluting industry is places in their existing neighbourhoods because they hold less political power (Currie et al., 2015).

The disproportionate effects of environmental hazards are not the only injustices low-income groups face. As countries and cities move towards green development for climate change mitigation and adaptation (e.g., energy-efficient buildings, bike paths, increased transportation, etc.), low-income groups are often forgotten. For example, low-income families are facing higher energy costs following the rise of energy prices due to transitions to renewable energy (Frondel et al., 2015; Russo & Pattison, 2014).

**People Experiencing Homelessness.** People experiencing homelessness can be considered a low-income group, facing similar environmental burdens and unequal benefits. More often than not, these people are located within urban areas/cities where services and resources are more accessible. Although cities can provide helpful services to those experiencing homelessness, such as food banks and shelters, the rapid growth of cities is one of the factors contributing to homelessness (Adetokunbo & Emeka, 2015). For example, transit-oriented development, which



drives house values up, displaces low-income families, some of which may end up experiencing homelessness. There is a lack of recognition for people experiencing homelessness and they are often seen as not having necessary capabilities to be on par with the rest of society. People experiencing homelessness, for example, are especially vulnerable to the effects of climate change as they experience more exposure to extreme weather and have less means to cope with the consequence of that exposure (e.g., changing soaked clothing after a heavy rainstorm; Wandel, Riemer, de Gómez, et al., 2010). To address these sustainability injustices, climate action planning should actively seek to meaningfully engage people experiencing homelessness and identify areas of municipal responsibility (e.g., transportation, energy, waste, etc.) that are connected to homelessness. People who experience homelessness have also indicated that they would like to be part of developing sustainability solutions (Kline & Riemer, 2009).

**Racialized Groups.** Racialized groups, who are also often experiencing low income and poverty, are also disproportionately affected by environmental hazards and sustainability injustices (Agyeman et al., 2016). The Environmental Justice Movement started in 1982 when a predominantly black and low-income community began protesting the development of a toxic waste facility nearby (Agyeman et al., 2016). It was found that the siting of hazardous and toxic waste facilities disproportionately exposed environmental toxics to these communities (Government Accountability Office, 1983; UCCC for Racial Justice, 1987). Since then, several organizations and committees have been established to ensure the protection of these communities, though this does not appear to be enough. Today, we see Flint, Michigan, a city where 53.7% of the population is African American and are struggling to access clean water (*U.S. Census Bureau QuickFacts: Michigan; Flint city, Michigan; United States*, n.d.). The city's aging pipes released lead into taps from being exposed to corrosives from the local river, and because the city downplayed the issue, many citizens developed increased health risks (Agyeman et al., 2016). Not only do racialized and low-income groups disproportionately bear the burden of environmental hazards and climate change, they do not receive equal benefits from sustainability practices. For example, Sunter and colleagues (2019) found racial inequalities exist in the deployment of rooftop solar panels, which are more prevalent in predominately white neighbourhoods. Meanwhile, Tehrani and colleagues (2019) found that transit-oriented development, such as light rail transit (LRT) systems displace low-income and racialized groups from the inner-city core to suburban areas. LRT promotes white, well-educated, young, high- or middle-income professionals, and small families to move closer to the city, increasing house and property value (Tehrani et al., 2019). Agyeman and colleagues (2016) argue that these injustices are primarily due to the lack of recognition and political power these communities have.

**Immigrants.** Immigrants, which may include climate refugees, are another equity-seeking group that suffer from sustainability injustices. Environmental displacement is becoming an increasingly pressing issue, yet at a global level there is no formal protection for climate refugees (Rodríguez, 2019). This is in part because the United Nations High Commissioner for Refugees (UNHCR) does not recognize climate change as threat from which a person may take refuge from (Rodríguez, 2019). Immigrants also face language and cultural barriers to employment, community participation, and resources (Sloane-Seale, 2005). To ensure recognition, climate action plans should be translated to other languages and include immigrants and other equity-seeking groups in the planning stages. In addition, promotion of sustainability initiatives, such as community gardens, should consider the specific needs of immigrant families and individuals, which are grounded in their culture of origin.



**People with Disabilities.** People with disabilities also face sustainability injustices such as inaccessibility to sustainable solutions. For example, multi-stream waste bins remain largely inaccessible to the visually impaired (*MEDA - Sustainable waste disposal*, 2019). On the other hand, sustainability-focused policies fail to recognize people with disabilities. For example, one policy aimed to discourage people from driving by restricting parking space availability but failed to consider people with disabilities that rely on transportation vehicles (Salkeld, 2019). Salkeld (2019) argues that a sustainability justice perspective is well suited for designing sustainability-focused policies as it has as strong concern for disability equality. However, there is almost no empirical literature addressing the accessibility-sustainability connection.

**Indigenous Groups.** Indigenous groups have been both among the groups most impacted by climate change impacts and among those at the frontline to fight for preservation of the earth, as their survival is “directly linked to their sustainable interaction with the land, and with the practices, ceremonies, and beliefs tied to that place” (Schlosberg & Carruthers, 2010, p.19). While recognition for and participation of Indigenous groups has grown significantly over the past two decades in climate action both internationally and locally, Indigenous “knowledge is missing from policies and strategies being created to address the climate crisis (*Indigenous Climate Action*, n.d.). In regard to *nibi* governance (i.e., water governance in Anishinabek) Indigenous knowledge is excluded for multiple reasons, including a lack of meaningful consultation, existing colonial governance frameworks that are fragmented, and a lack of trust in providing Indigenous knowledge as it was misused in the past (Chiblow, 2019; Simms et al., 2016). Latulippe and Klenk (2020) propose making space for Indigenous knowledge, ideas, voices and science. They suggest “Indigenous governance ought to be central to any conversation on knowledge co-production and societal transformation to support sustainability goals” (Latulippe & Klenk, 2020, p. 10). To work towards justice for these groups in climate action planning, further recognition of their capabilities and knowledge is needed, as well as meaningful engagement.

**2SLGBTQIA+/Gender-based Groups.** 2SLGBTQIA+ communities face exclusion and discrimination, often reinforced by laws, policies and practices that either fail to take their needs into account or deliberately exclude them (Dorey, n.d.). For example, the Philippines often bars LGBTQ+2 from higher education, limiting them to irregular and low-paying jobs (Thoreson, 2011). Sustainable development solutions have also disproportionately benefitted opposite-sex couples, either deliberately or through insensitive design (Dorey, n.d.). An example of this is seen in the transition to sustainable agricultural farming in the United States. Agricultural farming follows long-established heteronormative norms, with the idea of a family farm run by a nuclear family. Along these norms, access to land was only available through marriage, high socio-economic status or inheritance, and in the U.S. same-sex marriage was only legalized in 2015. While the legalization of same-sex marriage was a huge success for the LGBTQ+ community, along with many other rights “real and perceived rural heterosexism can diminish queer people’s desire to farm” (Leslie, 2017, p.765). In order to ensure same-sex couples and 2SLGBTQIA+ can participate in sustainable farming, integration of their perspectives is needed in climate action planning and policies, along with considerations of equity and different types of justice. The *Sustainable Development Goals and LBGT Inclusion* guide highlights several different ways these groups have faced and are facing injustices, as well as several ways



2SLBGTQIA+ equality can be achieved. This guide recommends to “always consult with local LGBT groups in both the design and implementation of any support programmes, to make sure their needs are met, and no harm is done” (Dorey, n.d.). Women are also vulnerable to climate change impacts as they are more likely to live in poorer areas and have less education than men, making it difficult to recover from climate-related events (Braverman, 2018; Buckingham & Kulcur, 2009). This is despite their long-committed involvement in fighting environmental injustices. Increasing women’s political participation, and leadership and economic empowerment are central to work towards justice, including sustainability justice (UN Women, 2016).

**Youth.** As climate change impacts intensify, children and young people will be the ones faced with these challenges (White, 2011), thus including them in climate action planning is crucial. The youth led movement, Fridays for Future is one way youth are calling out governments for their lack of action on the climate crisis and lack of urgency to act (<https://fridaysforfuture.org/>). In addition, youth are an equity-seeking group who continuously struggle to get their voices heard in policy and action decisions, as their capacities to inform decision-making are often neglected (Haynes & Tanner, 2015). Participatory video, has been found to be a successful tool in empowering and strengthening resilience in youth in climate change adaptation and disaster risk reduction (Haynes & Tanner, 2015).

**Workers Affected by Green Transitions.** To work towards just sustainabilities, a just transition for workers from traditional industries to renewable ones is needed. Just transition is a concept that emerged from labour unions and environmental justice groups, as they saw a need to move away from industries harming workers, the community and the planet (Movement Generation Justice and Ecology Project, n.d.). Protection of workers’ jobs can be seen through unions who adopt just transition programs that focuses on re-training workers for sustainable aspects of the industry (Burrows, 2001; Goddard & Farrelly, 2018). An example of a just transition is demonstrated in Arizona. The Navajo tribe signed a lease allowing Peabody Energy, a coal company to mine on its reserves back in 1964 as long as Navajo Indians were considered for positions in which they qualified for at the company Since then, the tribe has seen detrimental impacts on the environment, with poverty rates twice as high as the state average. To help alleviate these issues, the Black Mesa Water Coalition is reviving the traditional Navajo wool market by developing partnerships with wool buyers. Not only are they helping transition to new economic opportunities but also ensuring it is just for the Navajo tribe (Yeo, 2017).

## Framing

How climate action planning is framed will determine the planning process, the approaches and the tools used to achieve change. Ideally, CAP framing should be intersectional, cutting across different social, economic, political and environmental areas. Framing also needs integrative thinking, making CAPs holistic, comprehensive and avoiding unintended negative effects in other areas of the system. As previously seen, CAPs can narrowly focus on environmental issues, mitigation and economic development, with too little concern for social equity (Finn & McCormick, 2011; Pearsall & Pierce, 2010; Saha & Paterson, 2008). If CAPs are framed around equity, justice, recognition, capabilities, distribution and participation, whilst living within the capacity of our ecosystems, then there is an increased likelihood that the CAP process, procedure, and outcomes will reflect these. In addition to a just sustainability framing



(Agyeman, 2008; Agyeman et al., 2003; Agyeman & Evans, 2003), there are different change frameworks that can be used that also address equity, justice and sustainability.

The Doughnut developed by Kate Raworth for OXFAM, for example, is a global-scale framework for sustainable development, which combines the concept of planetary boundaries with social boundaries (Raworth, 2012). The social foundation such as, food, social equity, education, forms the inner boundary, while the environmental ceiling, biodiversity loss, ozone depletion, chemical pollution, forms the outer boundary. The area between the two boundaries (i.e., the doughnut) represents an “environmentally safe and socially just space for humanity to thrive in” (Raworth, 2010, p. 4). Another framework, Just Transition, focuses on a fair shift to an economy that is ecologically sustainable, equitable and just for all its members (Movement Generation Justice and Ecology Project, 2014). It highlights strategies that “democratize, decentralize and diversify economic activity while we dampen down consumption, and (re)distribute resources and power” (Movement Generation Justice and Ecology Project, 2014, p. 3). An Indigenous framework, closely aligned with the former framework is based on the Indigenous Principles of Just Transition which center responsibility and relationship, sovereignty, and transformation (Indigenous Environmental Network, 2018). This framework emphasizes “a healing process of understanding historical trauma, internalized oppression, and de-colonization” for Indigenous people while moving towards an ecologically sustainable, equitable and just world (Indigenous Environmental Network, 2018, p. 2). C40 Cities also offers a climate action planning framework that focuses on engaging with the community and ensuring equitable distribution of sustainability benefits. Its three pillars are, commitment and collaboration, challenges and opportunities, and acceleration and implementation (C40 Cities Climate Leadership Group, 2020).

Areas for consideration when framing CAPs include, the vision, value statement, mandates, drivers/initiators, scope/reach of the plan, community or corporate focus, funding, strategic direction, a holistic and intersectional lens, as well as the language and terminology used (e.g., use of “racial justice” instead of “diversity and inclusion”). Participation of a diverse array of stakeholders, especially equity-seeking groups is essential when framing CAPs because participation is a prerequisite to justice (Agyeman, 2005; Schlosberg, 2007).

**Vision and Value Statement.** A CAP framed in terms of sustainability justice will have a clear holistic vision aimed around achieving environmental sustainability (e.g., certain emissions target), and social equity and justice. One example of a holistic vision comes from the City of Toronto’s CAP, TransformTO, which aims to “shape Toronto into a healthy, prosperous and equitable city with low greenhouse gas emissions” (City of Toronto, 2017). Similarly, a value statement is framed in a clear way that reflects the values of the whole community, not just those with dominant narratives (Agyeman, 2013). For example, Sydney, Australia’s CAP highlighted co-production, including and engaging diverse voices in the decision-making and planning processes, as a central value. As a result, there has been increased civic equity, connectivity and trust in the community regarding sustainability and climate action decisions, plans and developments (C40 Cities, n.d.).

**Mandates.** In Canada, provincial statute delegates municipalities power, functional responsibilities and access to sources of operating revenue (Sancton, 2000). Currently, municipalities are not mandated by the provincial government to create local climate action





plans, except in Nova Scotia (Guyadeen et al., 2019). However, municipalities are required to include climate change in city plans in one way or another. This means that plans around climate action in Canada can be extensive, or rather narrow (Guyadeen et al., 2019). Narrow CAPs focused on climate mitigation, rather than adaptation could be the result of weak/unclear mandates at the international, national, provincial and/or local level. Nova Scotia has mandated municipalities to create CAPs that aim to reduce greenhouse gas emissions and identifies areas for climate change adaptation (Guyadeen, et al., 2019). This suggests a transition towards more holistic CAPs focused on mitigation and adaptation, however equity and justice are still not considered. Thus, it is recommended that regional groups advocate to expand the mandate of municipal CAP, especially in regard to the inclusion of social justice and equity.

**Scope/Reach.** When framing CAPs, its scope needs to be considered. Framing through sustainability justice means that CAPs include intra- and intergenerational humans and non-humans (Stumpf et al., 2015), in rural and urban areas at an international, national, provincial, and local level. Additionally, CAPs can focus on mitigation and adaptation. For example, Louisville created two CAPs, one for emissions reduction, and one for climate adaptation. The latter focused on building a resilient city for all people, businesses and natural resources throughout the community today and for future generations (*Prepare Louisville: Building a Climate Resilient City for All*, 2020). As mentioned above, an important consideration is also how local municipalities address their responsibilities toward municipalities in other parts of the country (e.g., communities in the Canadian North) and other nations, such as small island states, who often do not have the means to invest in climate change adaptation and mitigation.

**Driver/Initiator.** This area considers the actors driving the development of CAPs (which may be connected to mandates) and the reasoning. Guyadeen (2019) found one influential driver of climate action planning has been the initiative of ICLEI Canada's Partners of Climate protection (PCP) program, as they help provide financial resources and technical expertise in developing municipal climate action plans. Their framework includes (1) creating a GHG emissions inventory and forecast; (2) setting a GHG emissions reduction target; (3) developing a local action plan to achieve the target; (4) implementing the local action plan; and (5) monitoring progress (Guyadeen et al., 2019). They help municipalities focus on mitigation and adaptation. As we can see, the way ICLEI frames CAPs influence how municipalities frame their CAPs. Since CAPs should be framed around equity, justice and sustainability, those driving the planning, implementation and evaluation of CAPs should also have a similar framing.

**Community or Corporate focus.** Climate action plans can be community or corporate focused, or both. The latter focuses on the operations under the control of the municipality itself (e.g., their fleet or public transportation) while the latter involves all of the key players with a stake in sustainability and the causes of climate change within the community, such as local businesses. Some municipalities may create both types to better address the needs of each sector. For example, Metro Vancouver developed a Corporate Climate Action Plan (CCAP) aimed at achieving corporate carbon neutrality through principles of sustainability, in addition to the City's CAP. In contrast, the City of Vaughan's community CAP was centered around reducing greenhouse gas emissions through leadership and education, to foster a culture of social responsibility (2014). The focus of CAPs will also influence what stakeholders are involved, and the scope of plans.





**Funding.** Another area to consider when framing CAPs is the availability of funding and the mandates attached to that funding. Municipalities can receive funding for CAPs from other levels of government and community organizations. For example, the Ontario provincial government allocated \$325 million to support municipal climate action (2018). However, the funding provided was specifically for municipalities to reduce greenhouse gas emissions, rather than funding for adaptation strategies. If considerations of equity and justice are not explicitly included in the funding mandate, local actors may find it challenging to include those while meeting their obligations to the funder. The state of California has shown some great leadership in this direction as reflected, for example, in their Climate Change and Health Equity Program (California Department of Public Health, n.d.). Thus, it is essential to consider the interests of funding bodies and how they influence the focus of municipal CAPs.

**Strategic Direction.** This aspect refers to the direction or path the CAP will take to meet the vision, mission, scope/reach and goals of the plan. If framed through a sustainability justice lens, the strategic direction of the CAP will have clear action steps to achieve and consider social justice and equity at all stages of the CAP and planning. The strategies being implemented to meet goals should also be framed in terms of sustainability justice. For example, strategies to include a diverse array of stakeholders and equity-seeking groups should be developed in co-production with members from those groups.

**Holistic and Intersectional Lens.** Integrating sustainability justice into climate action planning means that the CAP is framed through a holistic and intersectional lens. Finn and McCormick (2011) identify a holistic municipal CAP as one that includes (1) environmental protection and improvement, (2) procedural equity, (3) geographic equity, (4) social equity, (5) equitable economic development and (6) green economic development.

## Process

Another key consideration when developing climate action plans is the planning process. According to Finn and McCormick (2011), an equitable process: a) encompasses a wide group of stakeholders, especially those who are often left out of deliberative processes (equity-seeking groups); b) is transparent and documented; c) allows for debate and disagreement; d) shows willingness of planners and officials to change their assumptions, narratives and proposed solutions and; e) allows stakeholders to contest the plan after completion if disagreements occur during planning. The process of climate action planning needs meaningful engagement with a broad and diverse set of stakeholders, particularly the equity-seeking groups. When developing CAPs, the following needs consideration: governance/representations, integrative, participation/engagement, bargaining power and communication/control over narrative.

**Governance/Representations.** This aspect refers to who has the authority to make decisions over climate action plan policies, implementation, process and agendas. As well, who is represented in climate action planning and how much governance they are provided with. It is important to consider the different levels of governance (international, national, provincial/state, and local), as national governance will impact local decision-making. In line with SJ, a sustainable and equitable governance would be participative and inclusive (City of Brooks, 2010; United Nations, 2016). Rice and Hancock (2016) argue that new forms of social participations and social media, such as using online tools for participatory municipal budgeting, can be



effective tools that facilitate citizen decision-making, “thereby improving governance processes through empowerment” (p. 96).

**Integrative.** Just as framing needs to be integrative, so does the process of climate action planning. This means, engaging diverse stakeholders from different sectors (social, economic and environmental) especially equity-seeking groups, using their capabilities and knowledge, and using different approaches and tools during the planning. For example, Barcelona’s CAP process coordinated efforts across city departments and included an extensive community outreach program to create a CAP focused on climate justice, citizen action build, mitigation and adaptation (C40 Cities, n.d.).

**Participation/Engagement.** This aspect refers to how accessible and meaningful the planning process is to stakeholders. As previously discussed, CAPs are often narrowly focused on mitigation and key stakeholders are left out or cannot be meaningfully engaged because they do not identify with the same values and needs as those of planners and officials (Guyadeen et al., 2019; Schlosberg, 2007). To ensure equitable participation and meaningful engagement, we should work to eliminate values and practices that impede participation and instead make climate action, social and political decision-making more inclusive (Schlosberg, 2007). Key questions: What are the necessary conditions needed to participate? Who is defining these conditions? Do CAP goals and vision reflect that of the community? Are stakeholders meaningfully engaged in all steps of the planning, implementation and outcomes? What are the incentives for participation? What is the value in participating?

**Bargaining Power.** It is important to recognize that certain groups have more power in negotiations related to climate action planning and sustainability initiatives. This can influence who sets the agenda, who determines who gets invited, and who most actively participates in meetings. When organizing meetings and decision-making processes involving multiple stakeholders, it is, thus, important to implement specific measures to equalize that power. For example, in a project related to vulnerability to climate change for people experiencing homelessness, the researchers met with the people with lived experience of homelessness prior to project meetings to ensure they have all the information they need and feel empowered to be full members of the discussion (see description in Riemer, Reich, Evans, Nelson, and Prilleltensky, 2020). Key questions/considerations: Identify those who have more bargaining power than other stakeholders. How can we shift the power so it is equally distributed?- should it be equally distributed or give more power to those who have historically held less?- between levels of government and between planners /officials and community.

**Communication/Control over Narrative.** As Finn and McCormick (2011) identified, transparency and documentation are necessary to an equitable process. This means transparent communication between stakeholders throughout the process, as well as documentation of all decisions as a way to hold stakeholders accountable. Key questions: Is information on decision-making being shared with all stakeholders? Is the language being used inclusive and clear? Is there a need to translate documents into other languages? What is the definition of acceptable communication in the decision-making? Who shapes the language and the framing and what is their interest in the CAP?



## Approaches and Strategies to Change

Approaches, strategies and tools to change need to be just, so that they reach across traditionally segmented areas of planning and ensure a just distribution of impacts. The following types of approaches, tools and strategies have been identified: empowerment approaches, capacity-building approaches, policy tools, technological tools, assessment/planning tools, process tools, structural changes, cultural change, and comprehensive/sector specific approaches.

**Empowerment Approaches.** Empowerment approaches seek to give people and communities the true capacity to cope with the changing environment so that there is increased social awareness, and higher levels of social and economic participation (Singh & Titi, 2001). For example, youth-centered participatory video (PV) is a useful tool in empowering youth and strengthening resilience for climate change adaptation and disaster risk reduction (Haynes & Tanner, 2015).

**Capacity-building Approaches.** Similarly, capacity-building approaches aim to improve and give people and communities the capabilities they need to flourish. Cape Town used capability and empowerment approaches to retrofit ceilings in low-income homes. Members were provided with training and work experience in installing retrofit ceilings, the community was educated on maintenance and installation of new ceilings, as well as how to live more healthy and sustainable lives. The result was healthier, happier and more economically active communities due to improved health and smaller energy cost burdens (C40 Cities, n.d.). This example highlights one of the ways capacity-building approaches, like local hiring, can be connected with sustainability solutions.

**Policy Tools.** These tools help create policies that are equitable and sustainable, and implemented in a just and sustainable manner. An example is the Decentralized Citizens Engagement Technologies (D-CENT) Toolbox, which enables citizens to be informed and participate in issues that matter to them through online platforms. This includes collaborative policy decision making tools ([D-CENT Toolbox](#)).

**Technological Tools.** C40 Cities offers a report on polisdigitocracy, citizen engagement through digital technologies, highlighting different ways the community can be engaged digitally in climate action planning (<https://www.c40.org/researches/polisdigitocracy-digital-technology-citizen-engagement-and-climate-action>). Community-owned and distributed energy grids is another technological approach creating more energy equity and resilience (Mazur-Goulet, 2015). A for-profit technological tool offered by neighbourlytics, helps put citizen well-being at the centre of governance based on the Social Prosperity Standard (SPS). SPS is a rating system for neighbourhood well-being based on economic, physical and community prosperity ([neighbourlytics](#), [SPS](#)).

**Assessment/Planning Tools.** Assessment tools help assess the needs of communities and the risk posed to certain communities. Planning tools help plan out certain initiatives and goals in the CAP, as well as help plan a CAP. C40 offers several tools for inclusive planning, including a needs assessment module, indicator database, policy recommendation summaries, and action analysis database (<https://resourcecentre.c40.org/resources/assessing-risks-in-cities>). Flourishing Enterprise Innovation Toolkit uses a proven business model lens to enable leaders to collaborate



more effectively to understand, explore, diagnose, improve, design and tell stories about integrated solutions (<http://www.flourishingbusiness.org/>). Equitable, Community-Driven Climate Preparedness Planning (ECDCPP) Framework focuses on procedural, distributional and structural equity. The document provides characteristics of an ECDCPP process, and how to approach it with specific tools ([ECDCPP](#)). The Health Equity Impact Assessment (HEIA) tool helps “identify unintended potential health impacts of a policy, program or initiative on vulnerable or marginalized groups within the general population” (*HEIA Workbook*, 2012, p. 6). Its primary focus is to reduce inequities, and can be used in identifying equity-based indicators of success ([HEIA](#)). Additionally, there are supplement documents for LGBT2SQ and immigrant populations ([LGBT2SQ](#) & [Immigrant](#)).

**Process Tools.** These tools aid in the implementation, monitoring and evaluation of CAPs. C40 Cities offers a climate change adaptation monitoring, evaluation and reporting (CCMER) framework. It helps cities ensure inclusive climate action through addressing the equitable distribution of the impact of climate programs, actions and policies together with indicators that support monitoring and evaluation ([CCMER](#)). Another tool, the Social Life Cycle Assessment (Jorgensen, le Bocq, Nazarkina & Hauschold, 2008) models the social impacts of products and innovations over the course of their implementation.

**Structural Changes.** r3.0 provides nine blueprints which help address the gap between current practice and necessary programs with recommendations on how to fill the gap. Their focus is “redesign of a new economic system, resilience of social and ecological systems and regeneration beyond a baseline of social and ecological sustainability thresholds, to thriveability” (<https://www.r3-0.org/>).

**Education and Cultural change.** Several studies have shown that local attitudes and cultural values predict the level of equity in public policies (Riemer et al., 2020). Thus, education and engagement are necessary to shift cultural values and practices towards cultures of just sustainabilities. This includes designing culturally inclusive spaces, which seeks to integrate groups and draws from different cultures and subcultures (Agyeman, 2013).

**Comprehensive/Sector Specific Approaches.** These approaches/tools are specific to a sector, such as energy, transportation, food, waste, and public space usage.

**Transportation.** The Victoria Transport Policy Institute provides a report on evaluating transportation equity which “defines various types of equity and equity impacts, and describes practical ways to incorporate equity evaluation and objectives in transport planning” (Litman, 2020, <https://www.vtpi.org/equity.pdf>). The Mobility Equity Framework provides a three-step framework to center equity and community power. The steps are: 1) community needs assessment; 2) mobility equity analysis; 3) community decision-making power (Creger et al., 2018, [https://greenlining.org/wp-content/uploads/2019/01/MobilityEquityFramework\\_8.5x11\\_v\\_GLI\\_Print\\_Endnotes-march-2018.pdf](https://greenlining.org/wp-content/uploads/2019/01/MobilityEquityFramework_8.5x11_v_GLI_Print_Endnotes-march-2018.pdf)). See also [Electric Vehicles for All: An Equity Toolkit](#), and [Making Equity Real in Mobility Pilots](#). CUSP also offers webinars, resources and case studies for integrating equity into electric vehicle strategies and programs ([CUSP EV](#)).



**Waste.** C40 Cities developed a tool to measure potential net job creation from a waste collection and segregation action ([Guidance Report](#), [Tool](#)). The Waste Reduction Model (WARM) is another tool that assists in reporting GHG emissions reductions, energy savings, and economic impacts from different waste management practices (<https://www.epa.gov/warm>). Sustainability Through an Inclusive Lens (STIL), a recently founded social enterprise, developed tiles that make multi-stream waste bins more accessible to people with low vision.

**Public Space.** These tools assess whether development or redevelopment of public spaces has equitable benefits and burdens. For example, the distribution of ecosystem services (ES) which is a nature-based solution to urban challenges and contributes to human health and wellbeing (Geneletti et al., 2020) is an area where tools that consider social justice and equity are needed. biodiversity offers an interdisciplinary ecosystem services toolkit that can be used at any government level for ES assessment and analysis ([Ecosystem Service Toolkit](#)). One tool measures the health impact of walking and cycling projects ([https://www.c40knowledgehub.org/s/article/Walking-and-Cycling-Benefits-Tool?language=en\\_US](https://www.c40knowledgehub.org/s/article/Walking-and-Cycling-Benefits-Tool?language=en_US)).

**Energy.** The Canadian Urban Sustainability Practitioners (CUSP) developed a tool to measure energy poverty and equity across Canada. The mapping tool along with other resources helps cities be intentional in their design of clean energy programs, and better respond to the needs of low and moderate income householders ([Website](#), [Tool](#)). A similar tool can also be found in the U.S., called the Low-Income Energy Affordability Data (LEAD) tool (<https://openei.org/doe-opendata/dataset/celica-data>). CUSP also offers webinars and resources for integrating financial products into local energy programs to help overcome the upfront costs of energy upgrades. As well as to ensure an equitable and inclusive clean energy transformation (<https://cuspnetwork.ca/centring-equity-and-affordability/integrating-financing-products-into-local-energy-programs/>). The Urban Sustainability Directors Network (USDN) has a guidebook on equitable clean energy program development for municipalities, with a focus on program design process, program structure, and program implementation and evaluation ([USDN Energy Guidebook](#)).

**Food.** Food System Racial Equity Assessment (FSREA) tool for including racial equity principles into food systems decision making (<https://dpla.wisc.edu/wp-content/uploads/sites/1021/2017/06/Dundore-PP-Racial-Equity-Food-Planning.pdf>).

**Consumption.** Consumption-based approach measures the consumption of goods and services by residents of a city by capturing direct and lifecycle GHG emissions, as well as allocates GHG emissions to the final consumers of those goods and service, rather than to the original producers of those GHG emissions (<https://resourcecentre.c40.org/resources/consumption-based-ghg-emissions>). This aspect can also refer to the city's equitable consumption, such as hiring ethical labour companies that provides an equitable wage and working conditions to workers. For example, the City of Vancouver adopted a corporate procurement policy that embeds sustainability and ethical considerations, as well as created an ethical purchasing policy. These policy are in effort to 'green' the city (<https://vancouver.ca/green-vancouver/sustainable-purchasing.aspx>). Lambrechts (2020) offers an overview of ethical and sustainable sourcing through supplier selection,





assessment and development, purchasing behaviour and buyer-supplier relationships, and frameworks for ethical and sustainable sourcing. The Urban Sustainability Directors Network (USDN) also developed The Sustainable Procurement Playbook that provides practical advice, best practices, resources and tools to help cities with their sustainable procurement efforts ([http://responsiblepurchasing.org/purchasing\\_guides/playbook\\_for\\_cities/rpn\\_usdn\\_playbook\\_for\\_cities.pdf](http://responsiblepurchasing.org/purchasing_guides/playbook_for_cities/rpn_usdn_playbook_for_cities.pdf)).

## Evaluation and Assessment

The last key consideration in climate action planning is evaluation and assessment. This refers to assessing and evaluating the process and tools in climate change planning, and the implementation of proposed actions, and their outcome in relation to the framing of the plan. Within this consideration, the quality of the climate action plan can also be evaluated. Guyadeen and colleagues (2019) found eight characteristics that are important contributors to plan quality: fact base, goals, policies, implementation, monitoring and evaluation, inter-organizational coordination, participation and plan organization and presentation. While there is no explicit consideration of equity, evaluating plan quality is crucial to understand whether the CAP is fulfilling its intended vision and goals. Williams and Robinson (2020) use a developmental pathway approach for an evaluation framework which measure sustainability, specifically sustainability transition experiments. The framework includes evaluating and assessing three areas: 1) process, which measures fairness and inclusivity of the process, along with appropriateness of tools and methods; 2) societal effects, measuring short- and medium-term outputs and outcomes; 3) sustainability transition impacts, which measure long term impacts such changes in socio-technical systems and governance, and socio-ecological systems (Williams & Robinson, 2020). Evaluation and assessment should include indicators of justice, equity and sustainability, and ensure that the process of evaluation reflects sustainability justice. The following need consideration in evaluation and assessment:

**Indicators.** Indicators should be appropriate to scale and resolution. Baue (2019) suggests sustainable development indicators measure “the dynamic balance between the expanding forces of social development and the constraining force of ecological sustainability” (p. 1). Baue (2019) proposes a three-tiered typology of sustainable development indicators: incrementalist numeration, contextualized denomination and activating transformation (see report for further details [here](#)). These indicators help measure progress toward and achievement of sustainable development that considers equity and justice. Additionally, these indicators are informed by the Doughnut framework, further highlighting how evaluation and assessment should link back to the framing of the plan. Questions to consider: Do the measures in evaluation and assessment include indicators of justice, equity and sustainability? Where are these measures being taken from? Are they created specifically for this CAP? Are all these indicators part of evaluation/assessment, or are they independent?

**Evaluator.** This aspect refers to the group or person conducting the evaluations and assessments. Who is doing the evaluation/assessment? What are their interests in doing it? What is their expertise and experience in working with diverse and equity-seeking groups?

**Time/Resources.** This aspect refers to time allocated to and the accessibility of resources for evaluation and assessment. Key questions: Have sufficient time and resources been





allocated to conduct the evaluation/assessment in a meaningful and inclusive way? Who has control over the resources?

**Priority.** This refers to what is being prioritized in evaluation and assessment, and the priority of evaluation and assessment itself. Key questions to consider: What is being evaluated/assessed? How are decision being made to decide which indicators are being prioritized? Have indicators of sustainability justice been assigned appropriate priority?

### **Limiting/Supporting Contextual Factors**

Strauss and Corbin (1990) define contextual conditions as a “particular set of conditions within which the action/interactional strategies are taken” (p. 96). Intervening or limiting conditions are “the structural conditions bearing on action/interactional strategies that pertain to a phenomenon and facilitate or constrain the strategies taken within a specific context (p. 96). In contrast, expanding contextual conditions are conditions that help facilitate strategies taken within a specific context. The following contextual conditions are examples relevant to the integration of sustainability justice into CAPs: environmental (e.g., population increase, resource depletion), political (e.g., climate policies, corporation interests), legal (e.g., mandates), economic (e.g., funding, priority of financial needs), cultural, industry, science/technology (e.g., data availability), and knowledge. The specific contextual factors that are most relevant will vary and will need to be considered for each specific case.

### **Case Studies**

**Cape Town.** The City of Cape Town focused on retrofitting ceilings in low-income communities to improve the health of the communities and the energy efficiency of the buildings. Lessons learned: address multiple challenges simultaneously to make the case for funding; ensure new buildings are built to standard before retrofitting old ones; pilot a project to better understand the needs; secure a project champion for growth and success; teach communities how to maintain systems and live smart; evaluate the impacts, and lastly; grow programs for larger impact. Results included healthier, happier and more economically active communities, and over 8,000 ceiling retrofits (C40 Cities, n.d., p.12).

**New York City.** New York City created the Cool Neighborhoods strategy to cool vulnerable communities through a series of initiatives and a strong commitment to monitoring. As a result, 2,680 tons of emissions were avoided, social cohesion increased and overall energy costs were reduced. Key lessons: identify those most vulnerable to climate events and those most in need of support; get buy-in from multiple stakeholders; make community outreach a key component; monitor data for continued program improvement; coordinate already existing efforts and listen for feedback (C40 Cities, n.d., p. 22).

**Barcelona.** Barcelona published a new CAP in 2018 with a strong focus on environmental justice, citizen action, mitigation, adaptation and resilience. Key takeaways: build a plan that support everyone, and focuses on those most vulnerable to climate change; coordinate effort across city departments and ensure actions are implemented within each department’s budget plan; get organized to implement the climate action plan and monitor its success; and monitor implementation to meet targets (C40 Cities, n.d., p. 30).



**Sydney.** Sydney, Australia recognized effective mitigation and adaptation to climate change only happens with broad community support. Thus, they created a unique community engagement approach with a centralized group involved in every project to create a climate change adaptation plan. Key lessons: develop a set of principles to engage the public; adapt your engagement methods based on the target audience; identify representative forms of engagement; create a central public engagement unit to pool resources; use engagement to leverage buy-in from other levels of government; and use feedback and data to continuously improve engagement strategy (C40 Cities, n.d., p. 38).

**Buenos Aires.** Buenos Aires, Argentina is particularly prone to flood events, and with worsening climate impacts the City needed to develop a plan. They created an extensive program to update and improve river basins to better handle flood events and protect low-income communities most at risk while also extending access to water. Key lessons: understand the future of climate impacts; ensure technical expertise for realized impacts; procure funding that influence and supports project development and community engagement; implement projects that address multiple needs and provide countless benefits; make engagement, communication and community growth part of the project; and keep moving forward (C40 Cities, n.d., p. 46).

**Los Angeles.** Los Angeles aimed to promote transportation equity to include those often left with the burdens of sustainability solutions. The City entered a public-private partnership to launch an electric car sharing program in low-income neighborhoods. Key lessons: build a diverse and inclusive steering groups to ensure successful implementation; hire from local communities; create access and pricing structures that allow low-income communities to participate; leverage grants from other levels of government; measure impact through an iterative process; and expand programs with proven results (C40 Cities, n.d., p. 54).

**Paris.** Paris focused on creating a fair energy transition towards carbon neutrality, while addressing fuel poverty and creating new ways for all citizens to engage. Key lessons: define fuel poverty and address it with diverse actions; reach out to the private sector to prompt action; engaging and empowering everyone in the implementation of climate action; and lead the way with community support (C40 Cities, n.d., p. 62).

**Portland.** The City of Portland's vision of equitable climate action is reflected through their 2015 CAP, that aims for a prosperous, connected, healthy and resilient future. The City was committed to equitably implementing the actions in the CAP in ways that address health, safety, livability, access, prosperity and inclusive engagement. It is also developing climate-equity metrics to track the degree to which equity considerations are integrated into the decision-making processes and implementation of the CAP. They also created a report that specifically highlights how equity is integrated throughout the plan ([CAP](#), [Equity report](#), [progress report](#)). In addition, the City worked with Clean Energy Works Oregon to create an on-bill financing program to aid in transitioning to clean energy programs ([CUSP Case Study](#)).

**Toronto.** As mentioned previously, Toronto created TransformTO, a CAP with a focus on a healthy, equitable and prosperous Toronto. Its guiding principles include, advance social equity, protect low-income residents, create resilient communities and infrastructure, and



maintain and create good quality local jobs ([CAP](#)). The City is also exploring collaborative approaches to involve Indigenous Traditional Knowledges (ITK) and Indigenous communities in climate action planning and initiatives ([Indigenous Climate Action](#)). Additionally, they offer an engagement and equity report that highlights recommendations for engaging marginalized and equity seeking-groups in climate action planning ([Engagement & Equity, 2016](#)). Toronto also worked with CUSP in integrating equity into EV programs to align with TransformTO guiding principles ([Toronto CUSP](#)).

## Conclusion & Recommendations

At this point the idea of fully integrating sustainability justice into municipal climate action planning may appear daunting and too complex to even try. However, the purpose of this review was to provide an overview of the main dimensions and key aspects that are relevant and can be considered. The idea was to capture the key consideration in one comprehensive document so that this information that is spread across the literature is available in one accessible place. It may be best to consider this as a roadmap with many different possible routes and each local climate action team needs to decide for itself which route they want to take. Below, we share some general recommendations for embarking on that journey.

### Recommendations

Based on the literature review and existing case studies, a set of recommendations have been made. These are meant to support municipalities and cities looking to integrate or better integrate sustainability justice into their strategic climate action planning and plans. In order to work towards a truly just sustainable society.

- Ensure that, early in the process, the CAP and planning is framed with the dimensions of SJ as it will determine the process, approaches and tools to change, the evaluation/assessment and possible outcomes.
- Identify past, current and future sustainability injustices based on the dimensions of justice for each equity-seeking group and ensure the CAP address these injustices.
- Ensure meaningful engagement, participation and feedback for all equity-seeking groups at each stage of climate action planning.
- Ensure the process is inclusive and integrative by including a diverse set of stakeholders while proactively addressing issues of governance and power that may arise.
- Create and use approaches, strategies and tools for change that are just so that the benefits and burdens of CAPs are more equitably distributed.
- Build space and time into the planning process for ongoing reflection and learning.



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