EQUITY STRATEGY FOR MUNICIPAL CLIMATE ACTION PLANNING

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Prepared for:







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DEFINITIONS

Climate Adaptation: Reducing the vulnerability of human and natural systems to the effects of climate change and leveraging beneficial opportunities to enhance community resilience.

Climate Mitigation: The measuring of GHG emissions and related climatic impacts, setting goals for reducing emissions, and outlining actions to achieve these goals.

Climate Justice: Outcomes that address equity challenges surrounding climate change.

Equality: The equal distribution of the same resources across a community.

Equity: The allocation of resources according to needs, prioritising those whose needs are greater based on the systematic marginalization of certain groups.

Equity Deserving Groups: Describes any community that is marginalized, vulnerable, and/or disproportionately impacted by climate change and climate action. Such communities will differ based on the unique circumstances of any given municipality, however, in all cases actions must focus on identifying and prioritizing these groups. Further information on how to identify these groups will be provided in the strategy.

Vulnerability: The degree to which a system or community is susceptible to, and unable to cope with, the adverse impacts of climate-related stresses.

INTRODUCTION

The Purpose

This strategy will help cities address social issues as part of their existing Climate Action Plans (CAP) or act as a starting point for cities looking to develop a climate action plan with a focus on social and environmental justice. While there is increasing awareness of cities' responsibility in setting and achieving municipal goals and targets to address the current and future climate challenges,^{1, 2, 3} roadmaps on how to adequately incorporate equity and justice at a local scale remain unclear.^{4, 5}

This strategy addresses this gap and offers strategic guidelines for incorporating equity into municipal CAPs. This involves taking existing local disparities into account and making

^{1.} Malcolm Araos et al., "Equity in Human Adaptation-Related Responses: A Systematic Global Review," One Earth 4, no. 10 (2021): 1454–67, https://doi.org/10.1016/j.oneear.2021.09.001.

^{2.} Harriet Bulkeley and Peter Newell, "Governing Climate Change", (2010), https://doi.org/10.4324/9780203858295.

^{3.} Alessandro Sancino et al., "What Can City Leaders Do for Climate Change? Insights from the C40 Cities Climate Leadership Group Network," Regional Studies 56, no. 7 (2021): 1224–33, https://doi.org/10.1080/00343404.2021.2005244.

^{4.} Joan Fitzgerald, "Transitioning from Urban Climate Action to Climate Equity," Journal of the American Planning Association 88, no. 4 (2022): 508–23, https://doi.org/10.1080/01944363.2021.2013301.

^{5.} Francesco Vona, "Managing the Distributional Effects of Climate Policies: A Narrow Path to a Just Transition," Ecological Economics 205 (2023): 107689, https://doi.org/10.1016/j.ecolecon.2022.107689.

sure climate policies work to reduce, not exacerbate social issues, while centering the voices of marginalized communities. The negative impacts of climate policies and planning can be mitigated through careful planning, which engages multiple stakeholders at each stage of implementation.^{5,6}

Municipalities vary in terms of their governance, climate action plans, and progress on climate justice. As such, this strategy is broad and flexible to be amended by municipalities to fit their specific circumstances and needs.

The Problem

Climate change is creating disruptions to municipalities and their functions. Many cities have taken action to develop CAPs that are geared towards mitigating and adapting to local and global climate impacts.⁷ Though the goals of these action plans are positive, they can exacerbate existing social equity challenges.^{8,9} Equity has been a pervasive issue and the true severity of this problem was highlighted during the pandemic.¹⁰ This has resulted in a need to reduce barriers to equity by identifying and mitigating areas that perpetuate current equity challenges.¹¹ From a climate justice perspective, CAPs have the potential to address multiple disparities and inequities within cities.¹² Equity deserving communities are too often faced with the brunt of climate change impacts such as urban heat island effect, flooding, pollution, and other environmental injustices.¹³ Additionally, benefits of climate action often do not reach the communities who need it most, due to social, political and financial barriers.¹⁴

DATA COLLECTION

The supporting data for this strategy was obtained through secondary research that was conducted via a comprehensive literature review using both academic literature on equity and climate action in cities, as well as grey literature such as climate action plans and existing climate justice frameworks for cities. This work was further supported by conducting primary research, where information was collected through 30-minute virtual interviews with municipalities, NGOs, and individuals representing community perspectives across Canada (Appendix 1). Information pertaining to the four themes:

^{5.} Linda Shi et al., "Roadmap towards Justice in Urban Climate Adaptation Research," Nature Climate Change 6, no. 2 (2016): 131–37, https://doi.org/10.1038/nclimate2841.

^{6.} Fitzgerald, 2022.

^{7.} Brian Stone, Jason Vargo, and Dana Habeeb, "Managing Climate Change in Cities: Will Climate Action Plans Work?," Landscape and Urban Planning 107, no. 3 (2012): 263–71, https://doi.org/10.1016/j.landurbplan.2012.05.014.

^{8.} Linda Westman and Vanesa Castán Broto, "Transcending Existing Paradigms: The Quest for Justice in Urban Climate Change Planning," Local Environment 26, no. 5 (2021): 536–41, https://doi.org/10.1080/13549839.2021.1916903.

^{9.} Kayleigh Swanson, "Equity in Urban Climate Change Adaptation Planning: A Review of Research," Urban Planning 6, no. 4 (2021): 287–97, https://doi.org/10.17645/up.v6i4.4399.

^{10.} Sennan D. Mattar et al., "Climate Justice: Priorities for Equitable Recovery from the Pandemic," Climate Policy 21, no. 10 (2021): 1307–17, https://doi.org/10.1080/14693062.2021.1976095.

^{11.} Swanson, 2021.

^{12.} Greg Schrock, Ellen M. Bassett, and Jamaal Green, "Pursuing Equity and Justice in a Changing Climate," Journal of Planning Education and Research 35, no. 3 (2015): 282–95, https://doi.org/10.1177/0739456x15580022.

^{13.} Schrock, 2021.

^{14.} Swanson, 2021.

municipalities' capacity, governance, challenges and participation, was obtained through interviews with the municipalities (Appendix 2). Interviews with community-facing organizations gathered information that pertains to the framework itself, such as strategies for fostering community engagement and key considerations to best reflect the needs of equity deserving groups.

FUNDAMENTAL FINDINGS

Currently, the majority of Canadian CAPs do not include equity within their strategy. When it is included, it is either as part of a city's climate actions or described in a separate strategy. However, the favourable approach to meet social equity goals would be to create an equity strategy that can be incorporated within current climate action plans to ensure equity is being considered throughout all aspects of the plan. Further, an equity strategy should provide flexibility and direction for the applicability across various sectors that are prevalent in CAPs.

Other considerations that were apparent through interviews with municipalities, are the governance structures that influence plan creation and adoption. Typically, the climate team is responsible for coordinating climate actions across the sectors in which the actions are targeting, such as infrastructure, energy, environment, and economic development. The climate teams also vary in their position across different municipalities (i.e., finance, planning, environment, etc.). The positioning of this team impacts the ability and resources for climate actions to move forward. As such, this also impacts the ability of climate justice concerns to be prioritised and considered.

In general, municipalities are in early stages of implementing equity within their climate plans and find it challenging to effectively do so. This strategy aims to provide a solution for cities and climate teams to incorporate equity into their climate actions in an achievable way.

Challenges

To ensure the strategy reflected the needs of municipalities, various interviews were conducted with municipal employees across Canadian cities. Throughout these interviews, 9 key challenges have been identified as most prevalent for municipalities looking to address climate equity. They are:





1. Understanding equity

Many of those working in municipalities lack understanding of equity issues and struggle to understand what equity means in a practical sense.



3. The multiplier effect

Municipalities are already struggling to address climate related issues, let alone equity issues. The equity lens can act as a "multiplier" on top of climate change and make this topic appear overwhelming.



5. Difficult conversations

Topics that are core to addressing equity issues such as reconciliation and systemic racism can be uncomfortable to have, and getting people to reflect on these issues is challenging.



2. Recognizing connections

There is a lack of understanding among employees of how equity is connected to climate action and other services and programs the municipality offers.



4. Change resistance

This work requires those involved to change their behaviours, attitudes, and perspectives to align with the values of equity. This poses several difficulties as often, many are unwilling to adapt to new circumstances or ways of doing things.



6. Garnering participation

Engaging with marginalised communities is necessary to understand their needs rather than making assumptions.

However, municipalities struggle to get these communities to participate due to a lack of capacity on both ends.



7. Indigenous community engagement

Municipalities have weak relationships with Indigenous communities due to their lack of recognition, and lack of knowledge on how to appropriately engage with these groups.



9. Lack of KPIs

Municipalities do not have many metrics and KPIs to assess or track their progress towards achieving climate justice goals.



8. Lack of data

Data is required to understand who is being disproportionately impacted by climate change, and who is and who is not benefitting from municipal programs and services. Often, municipalities don't have this data.

MUNICIPAL FRAMEWORK FOR ADDRESSING CLIMATE EQUITY

This framework provides recommendations that address the challenges that municipalities identified, to ease barriers to incorporating equity in CAPs.

Guiding Principles

The developed framework acknowledges the interconnectedness of climate justice dimensions — procedural, distributive, and recognition equity — highlighting that multiple issues may coexist simultaneously. This recognition informs an equitable approach to public engagement, particularly emphasizing the inclusion of marginalized communities. These principles will guide climate action planning in cities.











The framework is outlined as follows:

I. Three dimensions of climate justice

II. Setting the foundation

- A. Municipal employee education
- B. Outlining synergies
- C. Framing climate justice
- D. Identifying leaders

III. Using the 3 pillars as guiding principles when planning and implementing climate actions

- A. Recognition equity
- B. Procedural equity
- *C.* Distributive equity

I. Three Equity Dimensions of Climate Justice

Addressing challenge #1 - understanding equity

Equity is a broad topic that can be defined in many ways. This poses challenges for addressing equity as there is no clear definition on what is considered within the term equity. Within municipalities, as previously mentioned, there are three key types of equity that are relevant and that need to be considered in order to ensure municipal climate actions are truly equitable.

Recognitional Equity

Recognitional equity includes structural equity and contextual equity, which acknowledge pre-existing social, political and economic structures and conditions that have, historically, benefitted some groups over others. Recognitional equity involves the identification of communities or groups who are most vulnerable or who have been ignored or underrepresented due to race, gender, age or socioeconomic status. It also lays the foundation for distributive justice and meaningful participation in decision-making. This dimension of equity asks who should be included as a stakeholder in climate action decisions and whose needs should be prioritized. Recognitional equity goes beyond fair representation and ensures that all voices within a city are recognized, even if not physically present in the participatory process.

Procedural Equity

Procedural equity within climate action considers the processes of how municipal decisions are made and who is involved in the decision making process. It is the equitable processes

^{15.} Melanie McDermott, Sango Mahanty, and Kate Schreckenberg, "Examining Equity: A Multidimensional Framework for Assessing Equity in Payments for Ecosystem Services," Environmental Science

^{16.} Kirsten Jenkins et al., "Energy Justice: A Conceptual Review," Energy Research & Social Science 11 (2016): 174–82, https://doi.org/10.1016/j.erss.2015.10.004.

^{17.} Sonja Klinsky and Anna Mavrogianni, "Climate Justice and the Built Environment," Buildings and Cities 1, no. 1 (2020): 412–28, https://doi.org/10.5334/bc.65.

^{18.} Swanson, 2021.

and efforts to include groups who are normally not included in decision making.¹⁹ This includes the education, participation, and engagement of equity deserving groups. This type of equity ensures that the plans and actions within a municipality accurately reflect the needs and wants of the community and are therefore able to prioritize the needs of the most impacted or vulnerable.

Distributive Equity

Distributive equity can be defined as the distribution of climate action benefits and burdens within society across different groups and communities.²⁰ Distributive equity within climate action planning is focused on answering the who, what, where and why questions associated with actions that claim to support equity. These questions help municipalities consider the groups who are receiving the benefits of the climate action plan's actions and program activities, what is being distributed and how these decisions are made.²¹

II. Setting the Foundation

Change management should be a top priority among municipalities to set the foundation for incorporating equity in their climate actions. Municipalities operate in sectoral departments that have their own priorities. Every sector has climate actions which are related to equity, and these connections need to be apparent to align employees on these issues and why they matter.

A. Municipal Employee Education

Addressing challenges #1 - Understanding equity, #2 - Recognizing the connections, #3 - Multiplier effect, and #4 - Change resistance

To address the challenge of getting municipalities to understand equity and its value, starting with implementing a diversity, equity, and inclusion (DEI) education program that includes mandatory staff training across all departments is recommended. Getting everyone involved to understand core concepts related to equity is necessary, before staff can begin actively incorporating these practices into the work they are doing. The overall goal of DEI training is to provide employees with concrete actions they can take to create a supportive and safe environment for all. This also involves helping workplaces become more diverse, equitable, and inclusive, to ensure representation of diverse communities across all levels of the organisation. Most often, DEI training programs are designed to increase awareness of inequality and bias, change institutional practices and policies that perpetuate discrimination or exclusion, and provide workers with a deep understanding of and empathy for what marginalized groups face.²²

^{19.} Donovan Finn and Lynn McCormick, "Urban Climate Change Plans: How Holistic?," Local Environment 16, no. 4 (2011): 397–416, https://doi.org/10.1080/13549839.2011.579091.

^{20.} Fitzgerald, 202

^{21.} Karen Bell, "Achieving Environmental Justice," Achieving Environmental Justice, 2014, 213–36, https://doi.org/10.1332/policypress/9781447305941.003.0011.

^{22. &}quot;What Is DEI Training?," Association for Talent Development, accessed February 17, 2023, https://www.td.org/talent-development-glossary-terms/what-is-dei-training.

DEI training will be successful if an assessment has been conducted, a desired outcome is identified, and the training is designed to increase employees' knowledge and skill set in ways that will lead to critical behaviour changes. Within the context of municipal climate action, the desired outcomes of these trainings would be to get employees to understand the importance and benefits of equity so that they can better prioritize this perspective within the work that they do. Therefore, it would also be important for such training programs to be tailored to fit this specific purpose.

Examples of DEI training that focus on intersections of climate change and equity, or climate justice, include:²³

- Understanding the intersection of race, class and climate: This explores how
 marginalized communities are disproportionately impacted by climate change due to
 systemic inequalities. This training could also explore how climate justice is not solely
 about reducing GHG emissions, but also about addressing environmental racism and
 social justice issues.
- Recognizing Indigenous knowledge and ways of knowing: Recognizing Canada's
 unique relationship with Indigenous peoples and their traditional knowledge and ways
 of knowing being crucial in addressing climate change. This training can explore the
 impact of colonization on Indigenous peoples and their environment, and how their
 traditional knowledge can inform climate action.
- Exploring the role of policy in addressing climate justice: Examines how policies can help or hinder climate justice. This training can explore how policies can be used to ensure that marginalized communities are not disproportionately impacted by climate change and how policy makers can centre social justice in their climate action plans.
- Developing cultural humility: Cultural humility is about recognizing that our own biases and perspective can impact how we approach issues like climate change. This training can help employees understand the importance of being open to learning from others and understanding the diverse perspectives and experience of different communities.
- Understanding the impact of climate change on public health: This training can explore how climate change affects public health, particularly in vulnerable communities, and how public health policies can be used to address climate justice.

Furthermore, it would be beneficial to incorporate the following topics in all DEI trainings:

- **Self-reflection**: Activities to help employees engage in self-reflection on topics related to intersectionality, such as the aspects of their identity in which they have power, privilege, and access, and the aspects of their identity where they lack such things.
- **Historical context:** Exploring the historical roots of bias and discrimination and connecting that history to current social movements.
- Role-specific training: Covering how the learners can take steps to combat bias and create more diverse, equitable, and inclusive workplaces, based on their role within the organisation.

^{23. &}quot;Workshops for Diversity Training," Canadian Equality Consulting, accessed March 10, 2023, https://canadianequality.ca/services/training/workshops/.

B. Outlining Synergies

Addressing challenges #2 - Recognizing the connections, #3 - Multiplier effect, and #4 - Change resistance

There is variability in the governance structure across municipalities, with a variety of ways that functions and sectors get grouped together. It will be important that the climate team understands how to work within sectors they operate in, to get support and alignment for advancing climate justice. This section highlights how to communicate climate justice synergies to the municipality as a whole and key sectors in which the climate actions are impacting. Key municipal sectors include: Governance, Infrastructure, Energy, Environment and Health, Housing, and Economy. Doing this aims to assist in the management of change throughout the municipality and advance climate justice initiatives.

Municipalities as a whole

Climate change is impacting municipalities through increasing numbers of extreme weather events such as floods, droughts, storms, heat waves, and increasing the threat of zoonotic diseases.²⁴ This not only will impact human livelihoods and health, but it will also have costly impacts on cities' basic services, infrastructure, and housing. ²⁵ This will increase cities' vulnerability, which brings into focus the ways in which inequalities are created and sustained by the same social, political and economic processes which determine what 'fairness' means.²⁶ Solutions must promote equity, assure access to basic resources, and ensure that young people can live, learn, play and work in healthy and clean environments.²⁷ Due to the synergies between social equity and climate strategies, municipal governments should embed social sustainability as a core competency throughout their various departmental roles.

Governance

Municipal employees and organizational culture have a large impact on equity. Municipalities that govern communities made up of diverse races and demographics should have employees that represent these communities. When positions are diverse, it helps to ensure that a variety of perspectives are considered and that the needs of different communities are represented. As such, municipal governments should hire and retain a diverse workforce.²⁸ Furthermore, municipalities that adopt diversity management practices manage diversity more effectively, for example: a mission statement, affirmative action plan, diversity policy and plan, diversity training, and organizational tools for recruiting and hiring diverse groups.²⁹ When community members can see themselves represented in the municipality, it can build trust and encourage engagement in the climate action planning process.

^{24.} Harriet Bulkeley, Gareth A.S. Edwards, and Sara Fuller, "Contesting Climate Justice in the City: Examining Politics and Practice in Urban Climate Change Experiments," Global Environmental Change 25 (2014): 31–40, https://doi.org/10.1016/j.gloenvcha.2014.01.009.

^{25.} Bulkeley et al., 2014.

^{26.} Bulkeley et al., 2014.

^{27.} Bulkeley et al., 2014.

^{28.} Yongbeom Hur, Ruth Ann Strickland, and Dragan Stefanovic, "Managing Diversity: Does It Matter to Municipal Governments?," International Journal of Public Sector Management 23, no. 5 (2010): 500–515, https://doi.org/10.1108/09513551011058501.

^{29.} Hur et al., 2014.

<u>Infrastructure - transportation and the built environment</u>

Many challenges with infrastructure are related to distributional equity, where groups are disproportionately impacted by the outcomes of infrastructure planning and development. For example, cars have negative environmental externalities including noise pollution, air pollution, road accidents, and use of public space.³⁰ Additionally, there are accessibility issues as car-based infrastructure excludes lower socio-economic status communities.³¹ The wealth gap is a major factor in prioritizing affluent community areas, resulting in an inequitable distribution of resource and opportunity throughout the community.³² As such, cities should plan for land use to reduce negative externalities by creating multipurpose corridors of commercial, residential, and leisure activities, well served by modern, public transit for more urban citizens.^{33,34}

Energy - sources, use, and consumption

Energy sources, use and consumption is especially relevant to equity. A municipality that primarily operates on oil and gas has negative environmental impacts on communities surrounding manufacturing plants, as well as use in the city. ³⁵ Key concerns are the impact of companies' operations on indigenous peoples, cultural heritage, and resettlement. ³⁶ To mitigate these negative environmental impacts, climate actions focus on the adoption of renewable energy technologies. ³⁷ However, the policies created for the adoption of these technologies pose issues of distributive equity by the uneven distribution of opportunities and financial burdens of adopting such energy sources. ³⁸ The next generation of policies should incorporate equity as another first-order consideration in policy design and implementation. ³⁹

Environment and Health - greening the city, water quality, and air quality

The city environment has a major impact on the health of its residents, impacting water and air quality, climate change mitigation capacity, as well as overall wellbeing of residents. However, the way cities plan their environment and green spaces is not equitable. Equity deserving communities are often disproportionately impacted by climate change and often are not given the same opportunity and access to green space. 42

- 30. David J. Hess and Rachel G. McKane, "Making Sustainability Plans More Equitable: An Analysis of 50 U.S. Cities," Local Environment 26, no. 4 (2021): 461–76, https://doi.org/10.1080/13549839.2021.1892047.
- 31. Jean Mercier, "Equity, Social Justice, and Sustainable Urban Transportation in the Twenty-First Century," Administrative Theory & Praxis 31, no. 2 (2009): 145–63, https://doi.org/10.2753/atp1084-1806310201.
 - 32. Mercier, 2009.
 - 33. Hess and McKane, 2021.
 - 34. Mercier, 2009.
- 35. Kathryn Tomlinson, "Oil and Gas Companies and the Management of Social and Environmental Impacts and Issues," Extractive Industries, (2018), 422–41, https://doi.org/10.1093/oso/9780198817369.003.0020.
 - 36. Tomlinson, 2018.
- 37. Felix Mormann, "Clean Energy Equity". Utah Law Review, 2019: No. 2 (2019): 335-81,
- https://core.ac.uk/download/pdf/217370308.pdf
 - 38. Mormann, 2019.
 - 39. Mormann, 2019.
- 40. Theodore A. Endreny, "Strategically Growing the Urban Forest Will Improve Our World," Nature Communications 9, no. 1 (2018), https://doi.org/10.1038/s41467-018-03622-0.
- 41. Kirsten Schwarz et al., "Trees Grow on Money: Urban Tree Canopy Cover and Environmental Justice," PLOS ONE 10, no. 4 (2015), https://doi.org/10.1371/journal.pone.0122051.
 - 42. Schwarz et al., 2015.

Municipalities must account for these distributive concerns when creating policies and implementing those policies on the environment and green spaces.⁴³

Housing

Climate change can have significant impacts on housing services offered by municipalities. One of the main impacts is the increased risk of damage to housing infrastructure caused by extreme weather events such as flood, wildfires, and hurricanes. This can result in damage to homes and other residential buildings, as well as displacement of residents and entire communities. Climate change can also exacerbate existing housing issues such as homelessness and housing affordability. Extreme weather events can lead to increased insurance rates for low-income homeowners in flood-prone regions and the destruction of affordable housing stock due to disasters, exacerbating existing housing shortages and increasing the demand for emergency housing services. Municipalities must consider the impacts of climate change on housing services and take appropriate action to proactively prepare and implement community-based housing solutions. This may include investing in resilient housing infrastructure, implementing adaptation measures, and addressing housing affordability and homelessness in the context of climate change.

Economy

When transitioning the economy to adapt to and mitigate climate change, there needs to be considerations to the opportunities and access of equity deserving communities to these jobs. The Government of Canada recently launched the "Sustainable Jobs Plan", which aims to transition Canada's labour force to respond to climate change. Municipalities should collaborate with the federal government to implement the "Sustainable Jobs Plan" and just transition. A just transition involves providing support and resources to workers to help them acquire the knowledge and skills needed to decarbonize industries and combat climate change. This approach offers several benefits for societies and the economy. A just transition promotes social equity by protecting the livelihoods of workers who may be impacted by the transition to a low-carbon economy, reduces inequality, and ensures that the benefits of decarbonization are shared more equitably across society. It also supports economic growth and creates new opportunities in the renewable energy and clean technology sectors, diversifies local economies, and promotes a more resilient and sustainable future.

^{43.} Schwarz et al., 2015.

^{44.} Mariya Bezgrebelna et al., "Climate Change, Weather, Housing Precarity, and Homelessness: A Systematic Review of Reviews," International Journal of Environmental Research and Public Health 18, no. 11 (2021): 5812, https://doi.org/10.3390/ijerph18115812.

^{45.} Jennifer Li and Katie Spidalieri, "Home Is Where the Safer Ground Is: The Need to Promote Affordable Housing Laws and Policies in Receiving Communities," Journal of Environmental Studies and Sciences 11, no. 4 (2021): 682–95, https://doi.org/10.1007/s13412-021-00702-4.

^{46.} Bezgrebelna et al., 2021.

^{47.} Li and Spidalieri, 2021.

^{48.} Li and Spidalieri, 2021..

^{49.} Bezgrebelna et al., 2021.

^{50. &}quot;Sustainable Jobs Plan," Government of Canada / Gouvernement du Canada, May 25, 2023, https://www.canada.ca/en/services/jobs/training/initiatives/sustainable-jobs/plan.html.

C. Framing Climate Justice

When it comes to addressing climate change and promoting climate justice, it's important to recognize that not everyone will be receptive to the same messaging. A communication strategy that takes this into account can help to effectively convey messages to those who may initially be unreceptive. Framing climate justice issues in a way that resonates with different audiences can help to get people on board with proposed solutions. For example, some individuals may be more likely to engage with climate justice when it is framed in terms of economic opportunity, such as the potential for new green jobs in renewable energy industries. Others may be more receptive to messages that highlight the health benefits of climate action, such as reducing air pollution and improving community health.

By tailoring communication strategies to different audiences, this can increase the effectiveness of climate justice messaging and build broader support for climate justice solutions. Recommendations for municipalities to keep in mind when developing a communication strategy on climate justice include:

- Focus on shared values: Focusing on shared values that are relevant to climate justice, such as fairness, can help to create a sense of common ground and reduce the perception of climate equity as a controversial issue.
- **Highlight co-benefits**: Highlighting the co-benefits of climate justice can help demonstrate the broader benefits of addressing equity in climate action planning.
- **Use positive messaging**: Framing climate justice using positive messaging involves emphasizing the opportunities and benefits of action rather than the negative consequences of inaction. This can help to create a more optimistic and hopeful narrative around climate justice.
- Share real stories: Illustrate the importance of climate justice by sharing the experiences of individuals and communities that are most vulnerable to climate change impacts. This can help create a human connection to the issue and foster empathy and understanding.
- **Use evidence:** Data and evidence can demonstrate the disproportionate impacts of climate change on vulnerable communities and the effectiveness of equity-focused policies and programs, to support the case for climate justice.

D. Identifying Leaders

Addressing challenge #4 - Change resistance

To further address issues of change resistance, it would be beneficial for those working to advance climate equity to identify the visionary leaders across different departments. These are persons who are open and willing to try new ideas or processes to find unique opportunities, and are motivated to get through challenges and achieve goals. Unless departments have individuals with this mindset, they are typically less receptive to addressing equity issues. It's likely that these types of employees would be less resistant to change, making them easier to work with to advance climate equity goals. Engaging with visionary leaders across different departments and getting them on board first may impact how receptive the rest of their department is to making the necessary changes.

Ways to identify leaders:

- **Reflect on municipal governance structures:** Consider affiliating the climate team with teams that have leadership power and influence across the organization.
- Identify departments that are leading within the environmental justice space: This could be any front-facing municipal service such as Public Health, that is concerned with the protection of environmental hazards and natural disasters, which is directly related to the impacts of climate change.
- **Identify influential individuals:** Identify individuals within departments that have influence on their colleagues. This can be done through speaking with individuals and determining who is well-respected and admired, as well as who is aligned with climate justice initiatives and has a willingness to move initiatives forward.
- Foster leaders within the organization: Provide opportunities for employee engagement in climate equity planning, such as task forces or working groups. This can involve providing a platform for employees to share their perspectives and ideas, and giving them a sense of ownership over the process.

III. Using the 3 pillars as guiding principles when planning and implementing climate actions

General guidelines

The guidelines below should be applied across all aspects of climate action plans and processes. The guidelines are organized by each pillar of equity.

A. Recognition Equity

Addressing Challenge #5: Difficult conversations

Municipalities must reflect throughout the process of the plan and rediscover the culture and values of the municipality in a way that recognizes all residents, their histories and challenges. When individuals feel that their unique experiences and identities are acknowledged and valued by their municipality, they are more likely to feel connected to and invested in their community. This can lead to increased civic engagement, better communication between community members and local government, and ultimately, a more equitable and inclusive municipality.

When planning and implementing climate actions, it will be important for municipalities to recognize the impacts of climate actions on equity deserving groups. It is recommended that municipalities do this by:

Identifying Indigenous histories:

- Their role as original inhabitants and stewards of the land the municipalities reside on.
- The systemic racism that has resulted in their marginalization and exclusion from decision-making.
- Identifying systemic challenges, understanding biases, and overcoming discomfort: Refer to the "Municipal employee education" section.
- Identifying equity deserving groups: Utilize existing data sources such as climate risk and vulnerability assessments and public health data to identify equity deserving groups in the municipality.

B. Procedural Equity

Addressing Challenges # 6 & 7: Garnering participation & Indigenous Engagement

Municipalities must ensure participation and feedback is authentic, by engaging with a wide variety of individuals and groups rather than continuously engaging with the same established groups or organizations.^{51,52} It is their responsibility to build a sense of trust in order to facilitate genuine participation and engagement, by creating empowering environments where individuals feel comfortable to express their concerns and needs.⁵³

Important themes to keep in mind throughout the entirety of the municipalities approach to procedural equity include:

- Relationship building: Rather than taking a needs-based approach to engagement, municipalities should create meaningful relationships and trust with community members. Front-facing employees that already work directly with the communities should leverage their relationships to gain a better understanding of community needs and facilitate community outreach and relationship building.
- Collaborative decision-making: Rather than unilateral approaches, decision making power should be shifted to the community on projects and initiatives.

There are various ways municipalities can enhance their procedural equity. Recommendations for encouraging participation from identified vulnerable communities include:

- Develop an iterative process for community feedback: Engagement of equity
 deserving groups should be considered throughout the planning and implementation of
 climate actions and initiatives. Municipalities should develop a process that allows for
 community feedback throughout all stages to ensure actions reflect the needs of
 community members.
 - To ensure the authenticity, include input from all segments of the community in analyzing issues, generating visions, developing plans and monitoring outcomes.
 This process should promise to integrate advice and recommendations from public advisory committees into plans and create a collaborative planning process.
- **Develop outreach strategies:** Effective outreach strategies can help build trust between the municipality and the community, encourage participation and involvement, and ensure that the climate action plans reflect the needs and perspectives of all community members (i.e., consider factors such as language barriers, accessibility issues, and convenient outreach locations for community members).
 - Climate teams should work with equity and planning to ensure outreach initiatives are available in multiple languages and provide multiple methods that are inclusive, such as in person, phone, by mail, or online.

^{51.} Cynthia Rosenzweig et al., "Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network," Climate Change and Cities, n.d., xvii–xlii, https://doi.org/10.1017/9781316563878.007.

^{52.} Breena Holland, "Procedural Justice in Local Climate Adaptation: Political Capabilities and Transformational Change," Environmental Politics 26, no. 3 (2017): 391–412, https://doi.org/10.1080/09644016.2017.1287625.

^{53.} Jill K. Clark, "Public Values and Public Participation: A Case of Collaborative Governance of a Planning Process," The American Review of Public Administration 51, no. 3 (2020): 199–212, https://doi.org/10.1177/0275074020956397.

- The location of equity deserving groups will differ based on community, but it's important to meet the community members where they are at i.e., community centers, schools, bus stops, grocery stores, and other places where they gather often.
- **Hire a community engagement specialist:** A community engagement specialist should be hired to coordinate and organize the participation process. This employee should reflect the communities they will engage with to enhance representation, build trust and credibility with residents by being trained in antiracism and equitable engagement approaches that divert from traditional western methodologies, and facilitate access to job opportunities for underrepresented communities to enter leadership positions.
 - This can involve creating pathways for underrepresented groups to enter leadership positions, such as through mentorship and training programs.
 - Engagement staff should be trained in antiracism and equitable engagement approaches that divert from traditional western methodologies to ensure authenticity.
- Allocate resources to encourage and sustain participation: Ensure there are adequate resources in order to engage meaningfully with equity deserving groups.
 - Equity deserving groups should be provided with incentives such as child care, bus passes, etc., to encourage participation.
 - Provide honorariums to equity deserving groups who participate. This recognizes that there are many barriers to participation and honorariums reduce this barrier by compensating those for their time.
- Identify and engage with grassroots/NGOs doing work in climate equity: This could look like partnering with community organizations to implement climate action plans and provide resources and support to frontline communities.
- Establish an equity working group: Formalize the engagement process by establishing equity working groups or advisory committees that encompass diverse perspectives that ultimately shape the goals and outcomes of climate planning. It should include all stakeholders, such as the city's environmental/climate change employees, environmental NGOs and activists in the city, members of the community, and industry groups; youth; public health organizations; and equity deserving communities.
 - This form of engagement is most useful in the form of an advisory committee that works to facilitate decision-making and shape goals. With this approach, diversity and representation is crucial, and applying an intersectional lens to recruitment would be fundamental. An equity group of this capacity would need to encompass diverse perspectives that ultimately shape the goals and outcomes of climate planning.

Given the unique relationship Canada has with Indigenous communities, it is crucial to prioritize Indigenous groups in municipal climate action planning and community engagement. Municipalities must build a relationship with Indigenous communities beyond the Duty to Consult, to incorporate their knowledge and input into climate action planning. As governments lack understanding of how to appropriately engage with Indigenous groups, presenting another barrier to their inclusion in decision-making processes, recommendations to consider throughout this process include:

- Acknowledge and respect Indigenous traditions: Often, municipal engagement and
 communication with Indigenous communities is based on Western methodologies. For
 example, rather than trying to reach out to these communities through a phone call or
 letter, have a representative visit the land to introduce themselves in person, and
 participate in their meeting ceremonies.
- Recognize each Nation as sovereign: It is also important that municipalities respect
 each Nation as a sovereign, rather than grouping all communities together as being
 Indigenous. Respective communities will have their own preferences for
 communication, and customs and traditions that should be respected throughout
 interactions.
- Two-eyed seeing approach: Refers to "learning to see from one eye with the strengths of Indigenous knowledge and ways of knowing, and from the other eye with the strengths of Western knowledge and ways of learning; and learning to use both eyes together, for the benefit of all". This approach creates a space for both Western and Indigenous ways of knowing to come together using the best of both worldviews to aid understanding and solve problems. 55
- Ethical space: Focus on creating a place for knowledge systems to interact with mutual respect, kindness, generosity and other basic values and principles. This concept acknowledges that all knowledge systems are equal and no single system has more weight of legitimacy than another.
- Hire a boundary spanner: A community engagement specialist would be one of the best ways to facilitate ethical space and meaningful engagement with Indigenous communities.
 - A boundary spanner would be particularly useful here, as they'd have the role of linking the municipalities internal networks with external sources of information, i.e., Indigenous communities. A boundary spanner can play a pivotal role in bringing together different perspectives and communities in climate action plans.
 - An additional consideration for this role should be knowledge of particular languages, as this is often a huge barrier when engaging with other communities.
 - Other useful approaches to participation and engagement that can aid in more collaborative decision-making include equity working groups and community engagement specialists, which have also been listed above.
- Compensation: Capacity funding is another limitation to Indigenous participation in planning processes. Indigenous communities are underfunded, and often they have many other responsibilities to fulfill with respect to their communities that take priority. To overcome this barrier, municipalities should consider compensating Indigenous groups for their time and participation, to show that their involvement is valued and appreciated. This should also be done with a consideration for the entire life cycle of a project, so that their participation can be sustained with continuous compensation.

^{54.} Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing

^{55. 1.} A. L. Wright et al., "An Application of Two-Eyed Seeing to Community-Engaged Research with Indigenous Mothers," International Journal of Qualitative Methods 18 (2019): 160940691986656, https://doi.org/10.1177/1609406919866565.

C. Distributive Equity

Addressing Challenge # 8 & 9: Lack of Data & Lack of KPIs

Prioritizing distributive equity will allow municipalities to help address historical and ongoing disparities and promote more inclusive and sustainable communities, by ensuring that everyone has access to the resources they need to thrive.

When planning and implementing climate actions, it will be important for municipalities to evaluate these initiatives and their impacts. It is recommended that municipalities do this by:

- Determining which groups are disproportionately at risk of climate impacts: Collect data that can provide mapping of communities that are most at risk so that climate action efforts can be directed towards those groups.
 - Leverage existing data through working with community facing departments, for example the public health sector, and establish metrics for equity outcomes. This can include community health indicators, such as asthma rates, emergency room visits from respiratory illnesses, and premature deaths from air pollution, to identify the impacts of climate change on public health in frontline communities.
- **Prioritizing frontline communities:** An equity lens tool can be utilised where each goal is evaluated based on the highest potential to reduce existing disparities as well as provide benefits to frontline communities. This can work by redressing past environmental harms or provide fair access to low-income communities that were unable to take advantage of previous climate actions.
- Conducting equity impact assessments: Evaluate the potential impacts of climate
 policies and programs on diverse and frontline communities through conducting an
 equity impact assessment. This can help identify unintended consequences and ensure
 that policies and programs are designed to address the needs and priorities of these
 communities.

OPERATIONALIZING THE FRAMEWORK

Implementing a climate justice framework within a city's climate action strategy is a complex process that requires planning and coordination among government officials, stakeholders, and community members. This section outlines different approaches to implementing the framework and a structure to guide implementation of the chosen approach. A case was chosen to provide a practical example of how this can be done, however the chosen option and implementation should be adapted based on specific contextual factors of a municipality.

Strategic Approaches to Implementation

Keeping the climate justice framework in mind, we have identified three strategic approaches to implementation.





Municipal climate teams will coordinate the implementation of the framework across all sectors. The framework will be provided to every sectoral division and every respected sector will be responsible to integrate equity within the climate actions within that sector.

2 — Phased Approach



Climate teams will identify the sector(s) in their municipalities where equity issues are most prevalent and work closely with the sector(s) to integrate the framework and include equity within its climate actions. This option would be a more targeted approach that would act as a pilot project before expanding to other sectors.

3 — Grouping sectors together



Climate teams will identify sectoral climate actions that have cross-linkages across other sectors and group these identified sectors together. Climate teams would be responsible for facilitating communication between these sectors when implementing climate actions. This approach would allow for collaboration between departments and provide support within the municipality when tackling these challenges.

Decision-Making Criteria

Decision making criteria has been formulated to reflect principal considerations for municipalities, which would help a municipality determine which approach would be the most ideal. There are four decision making criteria: capacity investment of climate teams, capacity investment of other teams/departments, ease of implementation, and scale of impact. The decision-making criteria, their weights, and associated ranking system are summarized in Appendix 3. This matrix should be utilized by municipalities to determine which approach reflects the current state of their particular municipality and how they could progress towards achieving equity goals.

It is clear that municipal capacity is a necessary consideration, considering both the human and financial capacity when implementing the framework. As such, both the investment that would be required from the climate action team and the investment that would be required by other teams/departments within the municipality are as the investment from each would be different across the approaches.* Based on our research findings, municipalities are often primarily limited by resources, hence these two decision-making criteria are weighted slightly more heavily than other criteria.

The next decision-making criteria evaluates the approach's ease of implementation. This pertains to how easy it will be to integrate the framework and includes considerations of

^{*}Note that the ranking for these two decision-making criteria is based on which option would require a low investment (i.e., scoring is reversed compared to other decision-making criteria). Thus, a higher score indicates that the option would not require much additional human and/or financial investments are required while a lower score indicates that a lot more additional resources would be required.

buy-in from all stakeholders, from employees to senior leadership. For this criteria, a higher score means the option would be less difficult to implement but a lower score would be more difficult to implement.

The final decision-making criteria considers the scale of impact the option will have on the municipality. For this criteria, a higher score indicates that the option would have the most impact while a lower score indicates that the option has a lower impact.

IMPLEMENTATION

The implementation plan provides guidance for a practical application of the framework. As municipalities vary greatly, we've chosen to consider a base-case municipality which can be described as having a climate action plan but low financial and human capacity. The plan reflects a municipality moving forward with the second approach which is to identify the sector(s) in their municipalities where equity issues are most prevalent and work closely with the sector(s) to integrate the framework and include equity within the climate actions associated with that sector. This approach would be a more targeted approach that would act as a pilot project before expanding to other sectors. The timelines reflect what is reasonable based on the above mentioned factors under consideration.

It is recommended that this implementation plan be used as a guide and be adapted based on the chosen approach which is determined by specific municipal characteristics.

Plan: Timeline & Resources

Phase 1

Timeline: 21-28 weeks

The first phase outlines the preliminary steps for identifying the sector to implement the pilot project. Within this phase, the climate team will understand the climate justice strategy and organize employee resources to begin the work on this strategy. This will also include municipal buy-in, through plan and budget approvals. Appendix 4 provides a summary of Phase 1.

The first step is for the climate team to establish a clear understanding of the social equity framework. The climate team project lead should familiarize themselves with the developed social equity framework and understand its key components. Within this step, the project lead should also understand/identify how their current climate actions fit within this framework already. Further, the project lead should determine roles for moving this work forward. This will involve outlining work plans that prioritize the strategy within their climate action work. Within this consideration, the project lead will evaluate the climate team's capacity and whether this work can be added into their work plans or if additional staff members are needed. Additionally, an important element to this strategy is the engagement of community members, therefore the municipality should designate or hire an equity employee to coordinate this work. This individual should have a strong understanding of equity and climate justice in order to support the municipality in this

work. Further, this employee should be reflective of the communities they are engaging in, refer to the "Procedural Equity" section guidelines of the framework for hiring criteria. The climate justice coordinator position would require the municipality to budget a minimum of \$65,210 for salary, to expand their team. Any additional employees needed should be considered in their budget proposal, as well as costs such as incentives and honorariums for participation and engagement in the community. This work will take approximately 4-6 weeks to undergo the organization of the team and begin the formation of the budget proposal.

The second step is to conduct an assessment of the city's social equity landscape as it relates to climate actions. The climate teams would need to conduct a comprehensive assessment of the city's social equity landscape to identify areas where social equity is lacking, and where intervention is necessary. This will help to identify priorities and inform the development of targeted strategies. Assessments that would need to be conducted include a vulnerability and risk assessment to highlight which communities are most vulnerable to climate impacts, and an equity impact assessment to evaluate the current programs in place to determine whether they are helping or hindering those most vulnerable. To conduct these assessments, the information and data needed can be utilized from equity consensus surveys, world council and city data (ISO standard). Another resource is a Racial Equity Impact Assessment & Implementation Guide,⁵⁶ which highlights how to do an impact assessment. Similarly, this can also be done with the help of feedback from departments where applicable. A survey would need to be distributed to departments that work directly with the community to understand the equity issues being raised by residents to identify where actions might be exacerbating the most prevalent equity concerns. Examples of equity issues could include inclusion of youth, indigenous relations, affordable housing, cost of living, access to EV charging stations and sustainable transport. The analysis should also consider the stage of implementation and choose a climate action within a sector that is receptive to implementing climate actions and would be more willing to engage with the climate justice strategy. The human and financial capacity needed to conduct this work is dependent on the current skills and capacity of the team, data availability and budget. For some, a similar assessment may have already been completed and thus would require minimal analysis to determine priority climate actions to include climate justice. There is another possibility that the team may have an employee that has the skills and experience conducting similar assessments and would be able to do it for this project. In that case, there would need to be human capacity from that employee to undergo the assessment, which would amount to working hours within their current workstream. For a municipality that is low in capacity they may require an additional staff or hire a consultant to do the work on their behalf. This would reduce the human capacity burden but would increase the financial capacity needed to hire the consultant. The assessment work will take approximately 4-8 weeks. Therefore, the budget should consider the potential cost of hiring a consultant to undergo this work.

^{56.} Marybelle Nzegwu Tobias et al., "Racial Equity Impact Assessment & Implementation Guide" (City of Oakland, September 23, 2020). https://cao-94612.s3.us-west-2.amazonaws.com/documents/FINAL_Complete_EF-Racial-Equity-Impact-Assessment_7.3.2020_v2.pdf.

The third step would be to determine the chosen climate action and its associated sector for the pilot. This would be the climate action that negatively impacts equity deserving communities (or potential to). The outcome of the assessment will be presented to the project lead to inform the proposal to council. This will take 1-2 weeks to finalize the strategy and budget proposal.

The final step is to consult with the department manager or municipal council, to get approval for the plan and budget. This will take using strategies outlined in the "Framing Climate Justice" section of the framework to create buy-in from municipal decision makers. The proposal will also highlight the approach, which will be a phased implementation working as a pilot project for a particular climate action which will be determined through the assessments. The approval process usually includes public consultation as well. As such, there should be engagement with stakeholders and community members. Climate teams should engage with equity deserving groups to obtain feedback on the developed social equity framework and the proposed climate strategy. Feedback should also be asked about what climate issues are having the largest impact on their communities. This feedback will help to ensure that the strategy is responsive to the needs and concerns of the community and that social equity is prioritized. This work would be done by the project lead to propose the plan and budget. The consultation should be done using municipal resources allocated to consultation processes. The project lead should be involved in the consultation process and thus would require time from their allocated in their schedule to dedicate to this process. It is estimated that this will take 12 weeks.

Phase 2

Timeline: 12-22 weeks

Within this phase, the climate team will begin to work within the chosen sector. Before implementing the strategy the climate team will need to build a foundational knowledge of climate justice within the sector to ensure the strategy is successful. Appendix 5 provides a summary of Phase 2.

The first step is to collect data on the municipality's current sentiment and knowledge on equity and climate justice. There is a possibility that this data has been collected by DE & I departments, therefore, this team should be consulted to obtain data if available. If data still needs to be collected the climate justice coordinator will administer a survey to sector employees. The climate justice coordinator would need to spend time conducting research on such surveys and develop one to achieve the desired outcomes of the survey. This foundational step would require an investment of 2-4 weeks to develop and collect data from sector employees.

The next step is to identify change champions. The climate justice coordinator will spend time within the sector speaking with employees and gathering insight from employees to identify who will be helpful in advancing the goals of the project. Refer to "Identifying Leaders" in the framework. This work will be done by the climate justice coordinator and take approximately 2 weeks to complete. Once the leaders are identified, the climate justice coordinator will report back to the project lead. The project lead will begin to develop

communication channels with the identified change champion(s) within the sector. This will enhance the accessibility of information between both the climate team and the sector when working together on advancing this strategy. Further, it would be beneficial for the change champions to lead the communication of these initiatives to their fellow employees. The communication strategy should be developed with the climate justice coordinator through the use of "Outlining Synergies" and "Framing Climate Justice" sections of the framework. This would require human capacity from both the climate justice coordinator and change champions. The financial resources needed would fall within their current work as a priority in their efforts as prioritized through top-down buy-in. This will take approximately 4-8 weeks to develop and administer the communications by the change champions to their colleagues.

Finally, an analysis should be conducted to determine whether further training needs to be done to get employee buy-in. The climate justice coordinator would analyse the results which would take 1 week in order to determine next steps. A result of greater awareness and understanding of climate justice would mean there would be no training needed within the sector. Therefore there would be no additional investment of the climate justice coordinator. However, if the results indicated low knowledge and understanding of climate justice, then additional training is necessary. At this stage, refer to the framework section "Setting the Foundation" and begin with "Municipal employee education". This will encompass gathering training materials and scheduling working sessions with employees in order for them to complete the training. For this circumstance, it would take an additional amount of time and effort from the climate justice coordinator to undergo this work. With a dedicated employee, it should take approximately 4-8 weeks to begin communications and undergo training with sector employees. As such, it would take additional time from sectoral employees to partake in this training. It is possible this will require additional funding to support after-hours training or take time away from sectors' existing projects and work schedule. It is likely the climate team would also need additional funding to support training in terms of accommodations and catering while employees are undergoing the training to ensure a positive experience from employees. If the budget did not accommodate these considerations, then the team can seek sponsorships to afford the accommodations.

Phase 3

Timeline: 7 months-2+ years

The third phase would require the climate team and sector to develop an implementation plan for the climate initiative done through consultation with equity deserving groups, and using the three pillars outlined in our climate justice framework as guiding principles throughout planning and implementation to integrate equity considerations into the climate strategy. Appendix 6 provides a summary of Phase 3.

The first step of this phase is for the climate team to work with the selected project leader in the identified sector to develop a detailed implementation plan for incorporating equity strategies detailed in the framework, into the proposed climate action. Within this step, the climate team and project leader should review the guidelines detailed in the climate justice framework to determine which actions are most relevant to the identified climate action the sector is implementing. They should consider the specific needs and challenges faced by that sector and how equity strategies can be used to address them. This may involve revising existing climate strategies or developing new ones that prioritize social equity outcomes. Once the relevant equity strategies have been identified, the climate team and project leader should outline specific actions that can be taken to incorporate them into the climate action plan. These actions should be detailed and actionable, with clear steps and timelines for implementation. Developing timelines is critical to ensuring that the actions identified in the implementation plan are completed in a timely manner. The climate team and project leader should establish realistic timelines for each action, taking into account any necessary approvals or permits, as well as any other factors that may impact implementation. Further, the climate team and project leader should assign clear responsibilities for each action identified in the implementation plan. This ensures that everyone involved understands their role in the process and is accountable for completing their tasks on time. This will require approximately 4-7 weeks, from the sector project lead and climate team project lead to revise the implementation plan. Coordination is also needed between both teams and meetings should be scheduled weekly to ensure that the work is being completed and progressing.

The next step would then be for the climate team and sector employees to begin implementation of their amended climate action strategy, referring to "Using the 3 pillars as guiding principles when planning and implementing climate actions" in the climate justice framework. The details of this step, such as resources and timeline, will vary depending on the specific municipality and the climate action and sector chosen for the pilot project.

Throughout these steps, the climate team should monitor and evaluate the implementation of the framework and within climate actions regularly using KPIs that reflect different stages of the implementation process. This will help to ensure that the strategy is effective in achieving its objectives and that any necessary adjustments are made in response to changing circumstances. Examples of KPIs that can be used to evaluate the success of the framework are detailed below under "Goals, Targets and KPI's". In addition, appropriate and relevant data should also be collected specific to the climate action being implemented, in order to evaluate progress of the newly developed implementation plan. The timeline for this step would be ongoing and dependent on the specific climate action. This step would be done through work of the climate justice coordinator by working with the community and collecting any necessary information and feedback throughout the project.

Phase 4

Timeline: Ongoing

The fourth and final phase relates to the implementation of the climate justice strategy across the rest of the municipality. The work from Phase 1 will be useful in guiding the next steps as it determined the priority areas of climate action and the groups that are most vulnerable. Appendix 7 provides a summary of Phase 4.

The first step should be to reflect on the challenges and opportunities from the previous phases. Afterwards, the strategy should be amended accordingly. An analysis should be done again, similar to Phase 1, to determine the climate teams capacity for administering this work across the organization. This could require the climate team to take another piloted approach. It could mean that they coordinate efforts and outline synergies between the benefits of climate actions and improve the support and cohesion for completing a more holistic approach to climate actions. It could also mean that all sectors undergoing climate actions will be provided the strategy and be responsible to administer it accordingly. This will take approximately 4-8 weeks and increased human capacity from the project lead.

The next step would be to get approval for future climate justice plans proposed by the climate team, undergoing approval processes similar to that in Phase 1. Within the proposal, the project lead should utilize the outcomes of the pilot project to gain buy-in from municipal decision makers, as well as other sectors once the strategy is administered. This process would take approximately 8-16 weeks.

Following the administration of the strategy across sectors, municipalities should create a formal equity working group with leaders identified in each sector. This will allow for coordinated efforts and alignment on the actions moving forward, as well as continued momentum and motivation from those who value the goals of the initiatives. This work would require dedicated time from change champions and the climate team project lead. It would take approximately 3-4 weeks to formalize the working group and meetings will be ongoing following its development.

Goals, Targets and KPIs

The goals are reflective of the key objectives of the strategy as well as the three pillars of equity. We separated goals and targets to allow municipalities to have general goals to measure, but have flexibility with amending the targets as needed to what is most realistic for that municipality.

We have broken down the goals for this project into Internal and External and have provided the KPIs to track progress, see Table 1. The KPIs were informed by the Racial Equity Impact Assessment & Implementation Guide resource developed for the City of Oakland.⁵⁷ It is recognized that goals relating to equity are hard to measure and can create bias and a checking the boxes approach, without true progress in equity. With these challenges in mind, we have recommended KPIs that evaluate progress toward reducing equity concerns. The inclusion of timelines in this section serves not only to set accountability but also underscores a commitment for municipalities striving to achieve their goals. While the presented timeline is based on a specific case municipality, it is imperative to adjust timelines based on the unique capacity of each municipality, ensuring realistic and attainable targets.

^{57.} Nzegwu Tobias et al., 2020.

Table 1. List of example goals, targets, KPIs, and timeline for municipalities incorporating the climate justice framework.

Type of goal	Goal	Target	KPI	Timeline
Internal	Employees have a strong awareness of climate justice	60-70% of participants had an increase in awareness of climate justice	Majority of employees (60-70%) score 80 or above on climate justice knowledge survey	1 month
Internal	Employees approach planning through the lens of equity; considering systemic issues in all decision making	60-70% of sector employees approach planning through the lens of equity	Majority (60-70%) of sectors have an internal policy that mandates the use of the equity framework in decision making	1-2 years
External	Engagement strategies reach equity deserving group	Engagement strategies reach 70% of equity deserving groups	Resources for engagement with equity deserving groups are deployed to 70% of neighbourhoods that equity deserving groups reside	2-3 months
External	Equity deserving groups are participating throughout the implementation	Equity deserving groups are a majority (60%) of those participating throughout implementation	Majority (60%) of total participants in engagement activities and events are a part of equity deserving groups	Ongoing
External	Have strong relationships and trust between equity deserving groups and municipal employees	70% of participants felt engagement was meaningful	Majority (60-70%) of respondents responded positively (greater than 3 on likert scale of 1-5) to questions asked relating to engagement	Ongoing
External	Reduce the risk of climate change impacts to vulnerable communities	Climate change impact risk to vulnerable communities is reduced by 70%	Mitigation and adaptation actions are implemented within majority (70%) of the vulnerable communities	Ongoing
External	Actions in implementation plan reflects priorities of equity deserving groups	60-70% of actions in the implementation plan reflect the priorities of equity deserving groups	Majority (60-70%) of frontline residents report feeling that implementation reflects their priorities	6 months - 1 year

ACKNOWLEDGEMENTS

We would like to thank Julius Lindsay, the Director of Sustainable Communities at David Suzuki Foundation, for giving us the opportunity to work on this project with DSF. Thank you to Hayley Macdonald and Irene Shao for their time and support with developing this framework. We'd also like to thank Shashi Kant and Devashish Pujari for their continuous guidance and support throughout. Lastly, we would also like to acknowledge the contributions of the municipalities, NGOs, and community leaders who took part in our interviews. Their experiences and perspectives were fundamental to the creation of the climate justice framework. Thank you all for being a part of this journey with us.

APPENDIX

Appendix 1. Interview participants representation based on location and organization type.

Organization	Location		
	New Brunswick	Ontario	Saskatchewan
Municipalities	1	8	1
NGOs		2	
Other		1	

Appendix 2. List of interview questions for municipalities.

Capacity

- What is the governance structure relating to climate action within the city (who is responsible for the plan and involved in its implementation; where do they sit within the municipal structure)?
- Does your city have an equity division or equity manager?
- What human and financial resources are being used/available to be used to achieve equity and inclusion?
 - What do you believe to be the necessary resources needed to effectively achieve equity
- How do departmental strategic objectives, initiatives or programs address climate equity? To what extent?

Challenges

- What are some challenges/barriers that arise when it comes to addressing equity?
- Are there certain sectors within the City that have a more difficult time engaging with and addressing equity issues?
- What equity issues are currently being raised by residents and employees?

Evaluation

- Are there corporate/sectoral performance measures/KPIs in place to capture the impact on people who are
 the most at risk of exclusion? Are there metrics in place to measure whether inclusion is increasing or
 decreasing?
- Is data being used to appropriately address equity in climate planning?
- (I.e., Equity Assessment Tool, Equity Lens Tool)

Participation

- What pathways are currently being explored to aid groups/individuals so they are able to engage/participate with/in Climate Action programs?
- Are there any incentives being used to encourage participation?

Strategic options (provide feedback on these options and which if any could work best in a municipality)

- 1. All sectors
- 2. Phased approach
- 3. Grouping sections

Appendix 3. Decision matrix which weighs the decision-making criteria against the three options and provides weighted averages. The highlighted column denotes the option with the highest overall score.

Decision-making Criteria	Weight	Ranking system	Option 1: Tackling all sectors	Option 2: Phased approach	Option 3: Grouping sectors together
Low capacity investment of climate teams (human & financial)	20%	1 = high investment required;	2	ω	1
Low capacity investment of other teams/departments (human & financial)	20%	3 = not much investment required	1	3	2
Ease of implementation - buy-in from all stakeholders	30%	1 = more difficult to implement; 3 = easier to implement	1	3	2
Scale of impact	30%	1 = low impact; 3 = high impact	3	2	3
	Sum		1.8	2.7	2.1

 $\label{lem:pendix 4. Summary of Phase 1 of the implementation plan outlining the steps, resources, and estimated time required.$

Step	Resource	Estimated timeline
1. Establish a clear understanding of the climate justice framework	People + Time: CAT creates climate justice workstream to dedicate time to implementing the framework within their climate action work People: Hire an outreach coordinator that is reflective of the community they are engaging with Financial: \$65,210 (avg salary) Information: Understanding of DEI, how to engage with marginalized communities	4-6 weeks
2. Conduct an assessment of the city's social equity landscape as it relates to climate actions	Information: Depending on the current skills and capacity of the team, data availability, and budget • People: Designate staff to conduct this work • People + financial: Hire outside consultant Tools: Possible Vulnerability or Risk Assessment, department survey Information: examples of data sources that can be used to complete these assessments are equity consensus surveys, world council and city data (ISO standard)	4-8 weeks
3. Determine the chosen climate action within a sector for the pilot	People + Time: CAT creates social equity workstream to dedicate time to implementing the framework within their climate action work	1-2 weeks
4. Get Approval from council on the proposed project	People + Time: CAT works with council to propose plan and get approval for the strategy and budget.	12 weeks

Appendix 5. Summary of Phase 2 of the implementation plan outlining the steps, resources, and time required.

Step	Resource	Estimated timeline
5. Sector employee knowledge survey	People + Time: Climate Justice Outreach Coordinator conduct outreach within the department to administer the survey. • Utilize existing equity department if existing/available Tools: Employee Survey	2-4 weeks
6. Survey Results Analysis a. Education training	People + Time: Capacity of CAT People + Time (possibly): Climate Justice Outreach Coordinator conduct outreach within the department to train employees using education resources in the framework. • Utilize existing equity department if existing/available Tools: Employee Survey, Climate Justice Framework	6-10 weeks
7. Identify change champions	People + Time: Capacity of CAT People + Time: Department employee - leaders capacity to administer training and work as liaison with climate team Tools: Climate Justice Framework	4-8 weeks

Appendix 6. Summary of Phase 3 of the implementation plan outlining the steps, resources, and time required.

Step	Resource	Estimated timeline
8. Climate Team and sector leaders develop an implementation plan	People + Time: Designate time needed to create/revise an implementation plan People + Time: Coordinated efforts - scheduled meetings weekly (as needed) throughout the implementation of the climate action	4-7 weeks
9. Climate team and sector employees implement climate actions using the climate justice framework	People + Time: Designate time needed to implement the new climate action implementation plan Tools: Climate Justice Framework Financial: Incentives, honorariums	Dependent on climate action timeline
10. Monitor and evaluate the strategy	Information: Community feedback Tools: KPIs	Ongoing

Appendix 7. Summary of Phase 4 of the implementation plan outlining the steps, resources, and time required.

Step	Resource	Estimated timeline
11. Use findings and knowledge gained in Phase 1- 3 to inform future work	Information: Feedback gained from community engagement and internal knowledge building sessions	Ongoing
12. Using the pilot project, gain buy-in from other sectors, identify Change Champions ect.	People: Capacity of the CATInformation: Outcomes of the pilot project	8 -16 weeks
13. Create an Equity Working Group consisting of Change Champions from across each sector	People: Change Champions, CAT	3 - 4 weeks

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