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Equity and Justice in Climate Action Planning
The Challenge of Evaluation

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Résumé de l'article

Les plans d'action climatiques permettent aux villes de répondre au changement climatique, mais l'efficacité de ces plans pour favoriser la justice sociale reste incertaine. Les caractéristiques d'un plan de qualité font l'unanimité, mais notre capacité à évaluer si les résultats de la planification sont équitables et justes reste insuffisante. Cet article examine la justice urbaine, la justice climatique et la littérature scientifique portant sur les plans de qualité afin de considérer comment les communautés devraient décider la signification et l'application des concepts d'équité et de justice, et comment les approches d'évaluation des plans pourraient être modifiées pour mieux évaluer leur efficacité à faire progresser la justice sociale. Je recommande l'utilisation de méthodes d'évaluation participatives et une approche qui considère l'efficacité des plans comme une caractéristique essentielle de leur évaluation.

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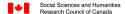Dr. Richard Shearmur, MCIP OUQ *McGill University*

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Equity and Justice in Climate Action Planning:

The Challenge of Evaluation

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Abstract

Climate action plans help cities respond to climate change, but the efficacy of these plans for advancing social justice remains unclear. There is agreement on the attributes of a quality plan, but our ability to evaluate whether planning outcomes are equitable and just is underdeveloped. This paper reviews urban justice, climate justice, and plan quality literature to consider how communities should decide the meaning and application of the concepts of equity and justice, and how plan evaluation approaches could be modified to better assess the efficacy of plans for advancing social justice. I recommend the use of participatory evaluation methods, and an approach that makes plan efficacy a more prominent feature of plan evaluation.

Résumé

Les plans d'action climatiques permettent aux villes de répondre au changement climatique, mais l'efficacité de ces plans pour favoriser la justice sociale reste incertaine. Les caractéristiques d'un plan de qualité font l'unanimité, mais notre capacité à évaluer si les résultats de la planification sont équitables et justes reste insuffisante. Cet article examine la justice urbaine, la justice climatique et la littérature scientifique portant sur les plans de qualité afin de considérer comment les communautés devraient décider la signification et l'application des concepts d'équité et de justice, et comment les approches d'évaluation des plans pourraient être modifiées pour mieux évaluer leur efficacité à faire progresser la justice sociale. Je recommande l'utilisation de méthodes d'évaluation participatives et une approche qui considère l'efficacité des plans comme une caractéristique essentielle de leur évaluation.

Keywords:

Climate action planning, justice, plan efficacy, plan evaluation, plan quality

Mots-clés:

Aménagement de l'action climatique, justice, efficacité des plans, évaluation des plans, qualité des plans

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Introduction

The effects of climate change are increasingly being experienced in communities around the world through disruptions to our natural and societal systems that directly impact the way we live. As the pace of climate change accelerates, climate action plans are rapidly being developed across a range of geopolitical scales as a comprehensive policy mechanism for reducing carbon emissions and adapting to the risks and opportunities posed by climate change (Araos et al., 2016; Reckien et al., 2018). Climate action plans establish policies and programs for reducing local contributions to climate change and identify strategic actions to lower the risks posed by the consequences of environmental changes (Boswell et al., 2012).

From a justice standpoint, climate action plans have the potential to serve as "tools of social and racial justice by tackling longstanding disparities and inequities within cities" (Schrock et al., 2015, p. 282) but the extent to which climate action plans serve this purpose remains unclear. Ambiguity surrounding the efficacy of climate action planning in advancing social justice goals is concerning given research demonstrating that equity and justice are important for achieving adequate, fair, and enduring climate action (Klinsky et al., 2017). Within this context, there is growing demand for plan evaluation approaches that determine whether efforts to integrate equity and justice concerns into local climate action planning lead to better outcomes for vulnerable residents.

Methods of evaluating the equity and justice of climate action plans are necessary given substantial evidence that climate change disproportionately affects low-income and minority communities (Hallegatte & Rozenberg, 2017; Reckien et al. 2017); that these groups receive fewer resources to anticipate and recover from climate change impacts (Kashem et al., 2016; Long & Rice, 2019); and that

disruptions often exacerbate existing inequities tied to gender, racial, and socio-economic inequalities (Anguelovski et al., 2016; Steele et al., 2012). Climate actions may also create a "triple injustice" (Bell, 2014), whereby the double inequality of climate change–that those who are least responsible for causing climate change are positioned to suffer the most from its effects–is compounded by climate action policies that exacerbate social and distributional consequences for groups that are already disadvantaged (Anguelovski et al., 2016; Bulkeley et al., 2013). Seemingly effective climate actions are often accompanied by unintended outcomes that disproportionately affect marginalized residents. Urban greening efforts, for instance, are known to contribute to gentrification processes and thus to new forms of race-based and/or class-based inequity that undermine efforts to advance justice (Anguelovski et al., 2022). These patterns highlight the need for an approach to evaluation that considers the efficacy of climate action planning for advancing social justice goals in communities.

Accordingly, this paper reviews urban justice, climate justice, and plan quality literature to identify plan attributes that advance equity and justice in the context of climate change. The paper then poses two key questions: how should communities decide the meaning and application of the concepts of equity and justice; and how can traditional plan evaluation approaches be modified to better assess the efficacy of climate action plans for advancing equity and justice goals?

There are multiple competing theories about the meaning of justice, how to assess whether it has been achieved, and who should be responsible for deciding these things. I address these debates by clarifying the meaning and varied interpretations of widely accepted dimensions of justice, namely distributive, procedural, and recognition justice, and exploring their application to plan evaluation theory

and practice. Here, I review studies that refine widely accepted equity and justice principles to develop criteria-based frameworks for evaluating climate action plans at different scales. Studies that use an equity or justice lens (as opposed to clearly articulated evaluative criteria) to evaluate a specific type of climate intervention (such as urban greening efforts, for instance) are not included in the review. The studies reviewed evaluate various types of climate change plans (adaptation plans, climate action plans, resilience plans and strategies), which are referred to here as *climate action plans* to capture a range of plans for addressing climate change.

Based on the literature review findings, I argue for the use of context-specific justice principles for deciding the meaning and application of equity and justice in communities, and for an approach to evaluation that makes plan efficacy–the power of a plan to produce equitable and just outcomes–a feature of plan evaluation.

Dimensions of Justice

Justice is a contested concept that continues to be negotiated by actors with conflicting perspectives on how the concept should be defined and deployed. Young (2001) clarifies the relationship between justice and the related concept of equity by suggesting that equity and justice are intertwined insofar as we evaluate equity and inequity to make judgments about justice and injustice. Some degree of equity is a condition of justice, so my reference to the concepts of justice and injustice throughout this paper assumes a corresponding degree of equity or inequity.
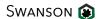
Equity and justice have been variably defined by urban justice, environmental justice, and climate justice scholars, highlighting the deeply contested nature of ideas of fairness. Early efforts predominately focused on the fair allocation of benefits and burdens among members of society (Davidoff, 1975; Krumholz, 2003; Rawls, 1971);

more recently, scholars have argued that fair and inclusive decision-making and special efforts to ensure representation of marginalized groups are also necessary components of justice (Davoudi & Brooks, 2014; Meerow et al., 2019). Recognizing that socially and economically disadvantaged populations suffer disproportionately from the impacts of climate change, and that inequities exist between individuals in terms of their ability to participate in planning processes, just climate action planning is commonly understood as a trilogy of distributive, procedural, and recognition justice. Although the precise definitions of these terms continue to be negotiated, the core concerns of each dimension are described below.

Distributive Justice

Distributive justice concerns the distribution of benefits and burdens among members of society. This dimension of justice tends to be outcome-focused and is fundamentally concerned with who gets what based on normative principles of fairness. Distributive justice establishes a connection between justice and the fair distribution of material resources (Davidoff, 1975; Rawls, 1971) where fairness in how goods are distributed is considered the most worthwhile criterion for evaluating public policy proposals (Davidoff, 1975).

Distributive approaches have been challenged by scholars who argue that focusing on the fair allocation of material resources leads us to overlook or ignore underlying social structures that determine distributional patterns (Nussbaum, 2000; Sen, 2009; Young, 1990). Advocates of the capabilities approach to justice argue that distributive conceptions of justice tend to neglect the social processes and relationships that influence a person's ability to convert material goods into substantive opportunities. Rather than focusing on how material goods are distributed, the capabilities approach reorients our understanding of social justice toward the distribution of non-material

goods such as power, rights, and opportunities. The capabilities approach challenges distributive models of justice by turning our attention from the means of living a person has, to the things they can do with those means (Sen, 2009).

Procedural Justice

The procedural dimension of justice shifts our attention from distributive outcomes to fair, transparent, and inclusive decision-making processes (Davoudi & Brooks, 2014; Meerow et al., 2019). This shift occurred in response to concerns that outcome-focused conceptions of justice overlook the fairness of procedures for making distributional decisions (Hunold & Young, 1998). Procedural justice complements distributive justice by focusing on process rather than outcome, and by considering how social relations and power dynamics can affect participation in deliberative settings.

The procedural dimension of justice assumes that democratic decision-making processes are a condition of social justice (Shi et al., 2016; Young, 1990). Still, these "democratic" and "participatory" approaches have been criticized for failing to ensure adequate representation of diverse groups, to achieve meaningful forms of participation, and to prevent powerful interests from dominating minority groups (Blue et al., 2019; Flyvberg & Richardson, 2002; Hillier, 2003; Tewdwr-Jones & Allmendinger, 1998; Yiftachel, 1998). The recognition dimension of justice emerged in response to these concerns.

Recognition Justice

Recognition justice considers how certain populations are made visible or invisible in policy development contexts. Questions about who is considered a relevant stakeholder and whose needs are prioritized during participatory processes are central to the concept of recognition justice (Klinsky & Mavrogianni, 2020). This dimension of justice emphasizes the need to understand the underlying political, economic, and social processes that determine how resources are distributed among members of society, and how these patterns may lead to oppressive participatory processes.

The concept of recognition justice advances procedural justice discourse by distinguishing between representation and recognition. While representation assumes groups are recognized if they are present during participatory processes, recognition considers how the interests and values of different groups are given voice and prioritized during these processes. Recognition is needed to avoid approaches that give one or more "representatives" (Yiftachel et al., 2009) the opportunity to advocate group interests in ways that overlook nuances of social diversity by positioning individual group members as homogenous.

Although the distributive, procedural, and recognition dimensions of justice are not automatically addressed together, they are closely connected–procedures of recognition enable groups to participate more fully in decision-making processes, which is integral to the equitable distribution of material resources (Meerow et al., 2019). To supplement these widely accepted justice dimensions, scholars have proposed additional indicators of justice to guide urban governance actors. Low (2022) advocates the need for "informational justice" to ensure the truthfulness and adequacy of the explanations given about urban governance activities. Kraan et al. (2021) use the concept of "interactional justice" to evaluate the quality of interpersonal and intergroup interactions. Bell (2014) is concerned with the physical environment in which someone lives, and refers to this dimension of justice as "substantive justice". Lieberknecht and Mueller (2023) emphasize the need to advance "structural justice" by addressing past harms experienced by marginalized groups, and

dismantling existing structural systems that disadvantage certain communities. The challenges associated with these varied interpretations of justice and the implications for evaluation are discussed below.

The Challenge of Evaluating Equity and Justice

While there is convergence in perspectives on the core concerns of the distributive, procedural, and recognition dimensions of justice, there is ongoing debate about the relative importance of each dimension in the overall evaluation of whether, and to what extent, justice has been realized. Conflicting perspectives on how the distributive, procedural, and recognition dimensions of justice should be measured and prioritized in our evaluations indicate that "there are no coherent, widely held criteria for ensuring social justice" (Chu & Cannon, 2021, p. 86-87) in urban climate action planning.

Disagreement on this front makes it immensely challenging to adopt a consistent approach to evaluating justice, and as such, researchers have adopted variable criteria for assessing the equity and justice of various types of climate action plans at different scales. The criteria guiding previous evaluations have evolved considerably over time. Finn and McCormick (2011), for instance, assess climate action plans from cities in the United States (U.S.) based on the spatial location of environmental harms and geographic proximity to desired land uses (geographic equity), the degree to which the plans incorporate equitable and transparent decision-making processes (procedural equity), and whether the plans target interventions toward the groups that need them most (social equity). Finn and McCormick (2011) 's evaluation considers how explicitly the plans reference these dimensions of equity, finding that substantive engagement with

equity concerns "beyond the level of rhetoric remains rare" (p. 412).

Hughes (2013, para. 13) draws on environmental justice scholarship to define justice in urban climate action planning as "just adaptation justly achieved". Further, Hughes (2013) identifies three primary criteria for meeting this definition: a) processes as representation of vulnerable groups in planning processes, b) prioritization as framing and prioritizing issues so that the needs of vulnerable groups are recognized, and c) impacts as enhancing the freedoms and assets of vulnerable groups. Applying these criteria to evaluate the justice of climate change adaptation planning in Delhi, India, the author finds much room for improvement. Taking a different approach, Schrock et al. (2015) assess climate action plans in U.S. cities based on the specificity and prominence of three types of equity: procedural equity (fairness in proceedings and decision-making), geographic equity (equity across neighbourhoods and communities), and social equity (equity across racial, ethnic, and class lines). Their findings indicate that few cities made equity a prominent theme in their climate action plans.

More recently, Meerow et al. (2019) adopt a tripartite framework of social equity that includes distribution, recognition, and procedural equity dimensions to evaluate urban resilience planning in North American cities. According to this evaluative framework, a socially equitable resilience strategy promotes equitable distribution of social and material goods (distributional equity), encourages meaningful participation and engagement in decision-making processes (procedural equity), and acknowledges social, cultural, and political differences (recognition equity). Meerow et al. (2019) found considerable variation in the extent to which resilience plans incorporate social equity, and in the forms of equity these plans consider.

In a study of resilience strategies from global North and South countries, Fitzgibbons and Mitchell (2019) argue that recognition, redistribution, and participation must be present to advance justice in planning processes and outcomes. Fitzgibbons and Mitchell (2019) found wide variation in the degree to which cities prioritize social equity in their resilience plans. Most recently, Chu and Cannon (2021) review key adaptation planning documents from U.S. cities to assess adaptation and resilience-building planning efforts across three dimensions: equity, (the distribution of opportunities, resources, and risks), inclusion (transparency, accountability, and diversity in decision-making processes), and justice (recognition of differential vulnerability and disadvantage). Their findings suggest that cities are variably operationalizing equity, inclusion, and justice criteria. These findings are consistent with recent research that has found variation in how climate action plans intend to measure the implementation of equity goals (Fitzgerald, 2022). Table 1 summarizes the broad range of equity and justice

Table 1. Summary of previous evaluation criteria.

Scholar(s)		Equity and Justice Criteria
Finn and McCormick (2011)	a.	**Procedural equity** – equitable processes with special efforts to include those normally left out
	b.	**Geographic equity** – spatial location of harms
	c.	**Social equity** – accounting for socio-economic factors in decision-making and targeting interventions toward groups that need them most
Hughes (2013)	a.	**Inclusiveness** –representation of vulnerable groups in planning processes
	b.	**Prioritization** – setting and framing priorities to recognize the needs of vulnerable groups
	c.	**Impacts** – enhancing the freedoms and assets of vulnerable groups
Schrock et al. (2015)	a.	**Procedural equity** – fairness in proceedings and decision-making
	b.	**Geographic equity** – equity across neighbourhoods and communities
	c.	**Social equity** – equity across social identities
Meerow et al. (2019)	a.	**Distributional equity** – access to goods, amenities, opportunities
	b.	**Recognitional equity** – acknowledgement and respect of different groups and social statuses
	c.	**Procedural equity** – equitable participation in decision-making processes
Fitzgibbons and Mitchell (2019)	a.	**Recognition** – recognitional public engagement processes
	b.	**Redistribution** – actions to reallocate material wealth and income
	c.	**Participation** – inclusive public engagement processes
Chu and Cannon (2021)	a.	**Equity** – equal and fair distribution of opportunities and resources
	b.	**Inclusion** – transparent and accountable decision-making processes that include diverse voices
	c.	**Justice** – recognition that minority groups are structurally vulnerable

criteria that have guided previous evaluations of climate action planning, demonstrating the varied interpretations of these concepts.

These studies, which highlight the variation in current approaches to evaluating equity and justice in climate action planning, correspond to three types of challenges for plan evaluation (as summarized in Table 2). The first challenge involves deciding which dimensions of justice should be considered in our evaluations of climate action planning. This decision determines whether the criteria guiding the evaluation should be grounded in principles of distributive, recognition, or procedural justice. The second challenge involves defining the various dimensions of justice. The way the distributive, recognition, and procedural dimensions of justice are understood by evaluators has important implications for the indicators developed to assess the presence or absence of each dimension in climate action planning processes and outcomes. The third challenge relates to how the various dimensions of justice are measured. Some evaluations consider how explicitly a plan references certain dimensions of equity, while others base their evaluation on the specificity of the plan regarding how different equity concerns will be addressed in practice. These differences make it challenging to adopt a consistent approach to measuring the presence or absence of

equity and justice considerations in a climate action plan.

These challenges highlight two things regarding plan evaluation: first, there are no precise guidelines for developing an equitable approach to urban climate action, nor are there consistent criteria for evaluating the equity and justice of climate action plans (although previous studies commonly allude to elements of distributive, procedural, and recognition justice). Second, while cities are variably operationalizing equity and justice concerns in their plans, there is ambiguity surrounding the efficacy of these plans for advancing social justice goals on the ground. These findings suggest the need for more concrete guidance on how communities should decide the meaning and application of equity and justice, and how they can evaluate their progress on equity- and justice-related goals.

Deciding the Meaning and Application of Equity and Justice

The concept of justice is clearly contested and appears to take on different meanings depending on social, geographical, and historical context (Brand, 2015; Harvey, 1996). Even where there is agreement about the content of justice (for instance, fairness), there is disagreement about its grammar (what exactly fairness means). Different experiences of injustice across different cities and between residents within a

Table 2. Summary of challenges facing evaluations of equity and justice.

Type of Challenge	Implications for Evaluation
Which dimensions of justice?	Considerable variation in the dimensions of justice included in evaluations of climate action plans to date
Defining dimensions of justice?	Considerable variation in how different dimensions of justice are defined by evaluators
Measuring dimensions of justice?	Inconsistency in the measures used to indicate the presence or absence of justice in climate action plans

city inform how the concept of justice is understood, articulated, and demanded in practice (Schlosberg, 2013). From an intersectional perspective, how an individual relates to and understands climate change depends on their position among context-specific social relations rooted in categories of social difference such as gender, race, and class (Kaijser & Kronsell, 2014). Deciding the meaning and application of justice in diverse communities, and devising corresponding evaluative criteria, is thus considerably challenging.

Scholars predominately agree that the question of justice, what it entails, and how it can best be achieved, can never be settled once and for all (Fischer, 2009; Lake, 2016). Brand (2015) has demonstrated that equity and justice are not universal concepts, but are actively constructed by different social groups to support their own interests. Harvey (1996) similarly suggests "there can be no universal conception of justice to which we can appeal as a normative concept to evaluate some event...there are only particular, competing, fragmented and heterogenous conceptions of...justice which arise out of the particular situations of those involved" (p. 342). Besides being difficult to distill, Huxley and Yiftachel (2000) argue that universalized planning principles pertaining to equity and justice contribute to perpetuating unequal power relations by privileging Western, Anglo-American contexts and traditions. Lake (2016) also cautions that universal justice principles "risk imposing culturally and historically specific norms on disparate situations" (p. 1212).

If universally grounded equity and justice principles are unrealistic–and arguably, undesirable– deciding the meaning and application of equity and justice is a context-specific undertaking for communities. This means communities need to be able to reach useful conclusions about what should be done without reducing multiple and potentially conflicting justice and equity ideals to a single set of evaluative criteria. Guiding questions about the presence or absence of various dimensions of justice are a starting point to more fully account for the multiple ways injustice occurs in the city. However, these elements should not be considered comprehensive or universally applicable (Davoudi & Brooks, 2014). Rather, climate action planning and its evaluation is a place-based endeavour that must be locally responsive and contextual (Porter et al., 2020). The following section provides guidance on how traditional plan evaluation approaches might be modified to better assess the efficacy of climate action plans for advancing equity and justice. Here, I emphasize the importance of participatory processes for deciding the appropriate and contextually-relevant meaning and application of these concepts, and for devising meaningful evaluative criteria.

Evaluating Equity and Justice in Climate Action Planning

Achieving equity and justice goals in climate action planning–or at least knowing whether communities are moving in this direction–requires plan evaluation. Planners and residents need criteria for determining what equitable and just planning processes and outcomes look like, and indicators to help communities decide when these processes and outcomes have been achieved. As a subfield of plan evaluation, plan quality evaluation is a specific type of evaluation that connects the content of a plan to normative criteria of what constitutes "a better plan" (Lyles & Stevens, 2014).

Although the plan quality evaluation literature does not offer a clear definition of 'quality', there seems to be conceptual consensus on worthwhile plan attributes, which inform evaluations of both the substantive content of key components of a plan, and its scope and coverage (Baer, 1997; Berke & Godschalk, 2009; Guyadeen et al., 2019; Lyles &

Stevens, 2014). Specifically, plan quality evaluations consider eight commonly referenced characteristics that focus on the content and communicative aspects of plans: the fact base informing plan goals and policies, goals and ambition statements about desired future conditions, policies to guide decision-making, implementation of plan policies, the framework for monitoring and evaluating activities, coordination among organizations and agencies, participation, and plan organization and presentation (Baer, 1997; Guyadeen et al., 2019).

Plan quality–including the aggregated set of characteristics above–has been discussed in theory for decades, but our practical ability to evaluate whether planning outcomes are equitable and just has not kept pace with advances in theory (Seasons, 2021). While there is consensus on the core principles of plan quality and the specific attributes of a high-quality plan, there is less clarity about how these principles should be operationalized in content analysis studies, and there is no clear procedure for developing plan quality coding items as part of an evaluation (Lyles & Stevens, 2014).

This gap between theory and practice has led to ambiguity about how communities should decide what an equitable or just outcome looks like, and how to determine when such an outcome has been achieved. Moreover, the generally accepted characteristics of a quality plan do not explicitly refer to equity and justice, although the plan quality literature does nod toward procedural justice by identifying participation as a baseline characteristic of high quality plans (Baer, 1997; Guyadeen et al., 2019; Seasons, 2021). Meerow and Woodruff (2020) have developed a set of principles for strong climate action planning derived from the plan quality literature that includes engaging the public and fostering justice in all planning processes, highlighting the importance of procedural justice in the design

and implementation of quality plans for addressing climate change.

Plan evaluation theory recognizes that a plan meeting the accepted plan quality criteria could nevertheless have little effect in the real world (Baer, 1997), and in practice, plan evaluation has not established a clear connection between plan quality and good outcomes. Few studies have focused on linking plan quality to planning outcomes to determine whether quality plans tend to be associated with better outcomes (Guyadeen & Seasons, 2016; Lyles & Stevens, 2014). At the same time, mismatches between local needs and the policies and actions recommended in climate action plans, and between the goals outlined in these plans and the outcomes of recommended actions, have led some scholars to question the causal impacts of plans (Sirigotis et al., 2022).

In other words, the relationship between plan quality and plan efficacy–the power of a plan to produce the desired result or effect–is not fully addressed in plan quality evaluation theory or practice (Connell & Daoust-Filiatrault, 2017). Plan evaluation tends to focus on how efficiently a plan was developed, or how effectively it was implemented, while overlooking the written content of the plan itself. This oversight could be addressed through an approach to plan quality evaluation that focuses on a plan as it is written as the object of evaluation, evaluated against the desired result–in this case, context-specific equity and justice criteria (Connell & Daoust-Filiatrault, 2017).

Such an approach is promising but challenging given a lack of clarity about where plan quality evaluation fits among the stages of the planning process. While typical ex ante evaluations (performed before plan implementation to assess forecasted effects of solution options), formative evaluations (performed during plan implementation to assess early performance), and ex post evaluations

(performed after plan implementation to assess effectiveness) are done in relation to the various stages of the planning process, the plan-as-object evaluation approach described above does not align with the commonly used stages of evaluation (Connell & Daoust-Filiatrault, 2017).

At the same time, plan quality research tends to value the eight characteristics of a quality plan described previously equally, even when one (such as participation) may be more important than another (such as plan format) in evaluations focused on equity and justice. This tendency could lead to the undervaluing of justice-related characteristics and the overvaluing of others (Guyadeen et al., 2019). Evaluations focused on the efficacy of climate action plans for advancing social justice must therefore pay greater attention to those plan characteristics that are clearly concerned with elements of distributive, procedural, and recognition justice. These efforts could then be taken one step further by also considering how equity and justice concerns might be related to plan characteristics in ways that are not immediately evident. For instance, a justice-oriented approach to plan evaluation might consider how inter-organizational coordination contributes to mainstreaming equity and justice concerns throughout the plan.

Clarifying how and when plan efficacy evaluations should be carried out should be a priority for plan evaluation theory and practice. As efforts to integrate equity and justice concerns into climate action plans become more widespread, evaluations of plan efficacy are needed to establish whether communities have actually become more equitable and just (Drevno, 2022).

The Value of Participatory Evaluation

The contested nature of equity and justice means that we need to be able to evaluate climate action plans without fully established and widely accepted ideals to guide us. Established plan quality criteria are meant to serve as possible considerations for planners who should also be able to devise variations and additional criteria that are relevant to their specific plan (Baer, 1997). Planners concerned with equity and justice thus have an opportunity to design context-specific criteria for evaluating climate action planning, but this is not a straightforward process.

Lake (2016) argues that evaluating already-achieved planning outcomes against already-established principles of justice–which are developed outside and anterior to the planning process–as evaluative criteria is retrospective and makes justice a possible consequence rather than a core element of planning. Rather than devising evaluative criteria based on universal principles of justice, and using these to evaluate planning outcomes retrospectively, Lake (2016) advocates a more forward-looking and continual approach that asks, "what is the just thing to do in this situation?, "what do we mean by justice here?...what does justice look like under these circumstances?" (p. 1212)

Asking these questions makes efficacy a feature of plan quality evaluation by shifting the focus of evaluation from plan development (process) or implementation (outcomes) to the plan itself. Lake (2016) also clarifies when plan efficacy evaluations should be carried out by recommending that an explicit consideration of justice should be made a central element of the entire planning process. This approach differs from typical approaches to evaluation that align with a specific stage of the planning process, and assess the outcomes of a plan against some a priori standard of equity or justice.

The value of evaluation as a tool for decision-making depends on the extent to which the assumptions underlying the measures used are accepted as consistent with public perceptions and understandings of urban processes (Meyer, 1995).

This point not only reiterates the problem with universal equity and justice principles as evaluation criteria, but also highlights the need for participatory evaluation processes where community members contribute to creating and selecting indicators that are rooted in their own perceptions and lived experiences (Seasons, 2021). Participatory evaluation represents one way of responding to calls for more equitable climate action planning from scholars who stress the merit of participatory processes for addressing injustice (Meerow & Woodruff, 2020), influencing resource distribution (Meerow et al., 2019), and achieving equitable outcomes (Blue et al., 2019). The current state of practice regarding participatory evaluation as a means to achieve more equitable climate action planning is discussed below.

Participatory Evaluation in Practice

Fitzgerald (2022) recently reviewed the climate action plans for five U.S. cities that have updated their plans to focus on equity: Austin (TX), Baltimore (MD), Cleveland (OH), Portland (OR), and Providence (RI). The goal of the study was to identify strategies that planners and policymakers are using to make climate action planning processes more inclusive of marginalized groups and to incorporate equity into the plan's goals. Fitzgerald (2022) found that comprehensive efforts to include underrepresented groups in the planning process, and taking measures to ensure that participants are valued, are essential for achieving authentic participation.

These findings make it clear that procedural justice is a trust-building process. The strategies being implemented in the case study cities also reflect best practices for building community-based resilience, including championing community members' right to exercise power in planning and decision-making processes that influence their well-being (Leventhal Center for Advanced Urbanism, 2023). Specifically, each of these cities put considerable effort into creating an authentic participation process and delivered on their promises of shared decision-making and inclusive and collaborative goal setting. Despite the attention these case study cities paid to equity and justice in the development of their climate action plans, there is room for improvement in terms of participatory evaluation.

Fitzgerald (2022) found that all plans included some form of guidance for evaluating whether the plan is being implemented in a way that is equitable, but the plans do not necessarily specify whether community members will be involved in the development of the indicators used to measure progress on this front. In other words, while the plans include guidance for equitable implementation, processes for evaluating the achievement of equity goals appears to remain expert-led. The commendable progress these cities have made toward addressing equity in their climate action planning processes should be extended to their methods of evaluation. Just as the development of equity-oriented climate action plans requires authentic participation during the development and implementation stages, effective evaluation of these plans requires a considerable upfront effort to include community members in the design of evaluation methods. Taking this additional step should be a goal for practitioners.

There are also knowledge-based reasons for including community members in evaluation processes–residents possess valuable knowledge about local conditions that informs context-specific responses to climate change, and this knowledge should be considered when evaluating a city's progress on equity and justice goals in the context of climate change (Byskov et al., 2021). Extending legitimacy to local perspectives contributes to forming the type of "extended peer community" (Funtowicz & Ravetz, 1993) that is needed to ensure evaluation processes serve local communities effectively.

Participatory evaluation also increases the likelihood that indicators will identify trends and patterns associated with the specific equity and justice concerns that are most important to community members, thereby providing "a more robust means by which to weigh whether specific climate actions will promote more equitable outcomes" (Peterson, 2022, p. 52). This approach comes with challenges typical of participatory processes for addressing contentious issues–even if there was agreement on which impacts to consider in evaluation, these impacts are unlikely to be equally valued by all residents (Meyer, 1995).

Conclusions and Recommendations

This paper has explored two key questions regarding equity, justice, and plan evaluation: how should communities decide the meaning and application of the concepts of equity and justice; and how can traditional plan evaluation approaches be modified to better assess the efficacy of climate action plans for advancing equity and justice goals?

Deciding the meaning and application of the concepts of equity and justice poses a considerable challenge for communities given the various ways these concepts are defined, and competing perspectives on how the distributive, procedural, and recognition dimensions of justice should be prioritized and measured when evaluating climate action plans. Ongoing debates about the nature of equity and justice indicate that community members' perceptions and understandings of these concepts in the context of climate change depend on several factors including social, geographical, and historical context (Brand, 2015), personal experiences of injustice (Schlosberg, 2013), and one's position among intersectional social relations and categories of difference (Kaijser & Kronsell, 2014).

These factors inform how justice is understood and demanded in practice (Schlosberg, 2013), and

have important implications for deciding the meaning and application of equity and justice in communities. Community members' perceptions of justice will continue to evolve as their needs and priorities change; with this reality in mind, climate actions should continually be evaluated based on context-specific criteria rooted in the perceptions and lived experiences of community members. Rather than reducing conflicting distributive, procedural, and recognition justice ideals to a single set of evaluative criteria and widely applying these criteria to disparate situations, approaches to evaluation should be place-based and community-negotiated.

Specifically, indicators should be informed by universal ideals of distributive, procedural, and recognition justice, and grounded in community context to provide a more accurate way of measuring whether specific climate actions promote outcomes that align with residents' perceptions of equity and justice. To this end, traditional approaches to plan evaluation, which tend to be researcher- or expert-led, should be modified to engage the voices and perspectives of residents. Participatory evaluation processed should be designed to ensure that community members' definitions and understandings of equity and justice, lived experience, and knowledge of local conditions are captured by the measures used for evaluation.

Previous evaluations of equity and justice in climate action planning have established an important baseline understanding of how normative equity and justice principles are embedded in climate action plans across cities in Canada and elsewhere. This knowledge has clarified the extent to which climate action plans are engaging with issues of equity and justice from the perspective of the researchers and experts who develop the evaluative criteria. However, these researcher-led evaluations tell us little about the ways community members understand and articulate equity and justice in the

context of climate change. Rather than relying on experts to develop frameworks for evaluating equity, tools that are meant to inform or improve local policy decisions should incorporate local input to ensure that evaluation criteria are accurate, representative, and meaningful in the local context (Oulahen et al., 2015). Developing participatory methods for devising equity and justice criteria based on input and feedback from community members is an important direction for future research.

Studies establishing the causal impact of climate action plans on equity and justice goals are also needed. Clarifying the connection between climate actions and the equity-related and justice-related trends or patterns that are most important to community members would contribute to establishing whether 'better' plans lead to 'better' outcomes, especially for vulnerable residents. Progress on this front would contribute to addressing the current gap between our theoretical understanding of what constitutes a quality plan, and our practical ability to evaluate whether quality plans support planning outcomes that are equitable and just.

To this end, plan efficacy–specifically, the power of a plan to produce equitable and just outcomes–must be considered a core component of plan evaluation (Connell & Daoust-Filiatrault, 2017). Shifting the current focus of evaluation from the efficiency of the plan's development and the effectiveness of its implementation to the plan itself as the object of evaluation enables us to evaluate a plan as it is written against stated objectives and desired outcomes, specifically those related to equity and justice.

This approach requires a form of plan evaluation that prioritizes and values not only those plan quality characteristics that are clearly concerned with elements of distributive, procedural, and recognition justice (such as participation), but also those characteristics that are less obviously tied to equity and justice but can have important implications for mainstreaming equity and justice concerns in climate action plans (such as inter-organizational coordination). A participatory approach to evaluation, supported by a focus on plan efficacy, would contribute to clarifying the extent to which climate action plans address disparities and advance social justice in communities. This knowledge would increase the value of plan evaluation as a tool for decision-making regarding equitable and just climate action planning, and address a significant oversight in plan evaluation theory and practice.

Acknowledgments

Notes on contributors

Kayleigh Swanson is a doctoral candidate in the School of Planning at the University of Waterloo. She has previously collaborated on research exploring climate compatible development strategies that reduce poverty and advance gender equality. Her current research explores how equity and justice considerations are embedded in climate action plans.

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