

**ADVANCED REVIEW**

# Just urban transitions: Toward a research agenda

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**Abstract**

While there are excellent policy and academic foundations for thinking about and making sense of urban climate action and questions of justice and climate change independently, there is less work that considers their intersection. The nature and dynamics of, and requirements for, a just urban transition (JUT)—the fusion of climate action and justice concerns at the urban scale—are not well understood. In this review article we seek to rectify this by first examining the different strains of justice scholarship (environmental, energy, climate, urban) that are informing and should inform JUT. We then turn to a discussion of just transitions in general, tracing the history of the term and current understandings in the literature. These two explorations provide a foundation for considering both scholarly and policy-relevant JUT agendas. We identify what is still needed to know in order to recognize, study, and foster JUT.

This article is categorized under:

The Carbon Economy and Climate Mitigation > Benefits of Mitigation  
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**KEYWORDS**

climate governance, climate justice, environmental justice, just transitions, just urban transitions

## 1 | INTRODUCTION

Two significant trends are merging in both the academic literature and the policy world. One is the ongoing expansion of urban climate action and its academic analysis, both within individual municipalities and through transnational municipal climate networks. Cities and their networks are now well-recognized as legitimate and authoritative governors of climate change and their ambition is growing alongside the increased urgency to take action quickly on climate change (Bulkeley, 2013; Bulkeley & Betsill, 2013; Gordon, 2016; Hughes, 2017; Tozer & Klenk, 2018; <https://carbonneutralcities.org>).

A second trend is renewed attention to questions of justice and equity in the political response to climate change, globally, nationally, and locally. At the global level, forums such as the UN Habitat Urban Agenda and Sustainable Development Goals have fused equity and sustainability in important ways. The Green New Deal in the United States is perhaps now the most well-known attempt to link justice and equity to climate action at the national level, but it is far from alone. Notions of a just transition, coming initially from the labor movement, have joined long-standing discourses of environmental and climate justice in public debate in numerous countries. Locally, municipal decision

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makers and climate action plans are increasingly making commitments to justice and equity in their pursuit of climate action. Increasing social and economic inequality in cities helps to foreground these challenges at the local level.

Yet, while there are excellent policy and academic foundations for thinking about and making sense of urban climate action and questions of justice and climate change independently, there is less work that considers their intersection. The nature and dynamics of, and requirements for, a *just urban transition* (JUT)<sup>1</sup>—the fusion of climate action and justice concerns at the urban scale—are not as well understood. Developed literatures on urban justice and equity are only beginning to incorporate climate change, and conversely, literatures on urban climate governance are only beginning to explicitly consider equity and justice. Further, the majority of scholarship in this area is retrospective and evaluative. Yet, municipal governments and their transnational climate networks are forging ahead, seeking to pursue just transitions in multiple ways as they pursue transformation and address climate change, essentially building the plane while flying the plane.

Scholarship should be able to help cities and transnational municipal networks design and pursue JUTs, but such support requires moving beyond diagnosing injustices and building a positive case for, and pathways to, just and equitable low carbon cities. In reviewing a range of justice-oriented literature, we find that justice and equity analyses have mainly been used as tools for raising awareness of problematic activities, and gaps in policy and planning that need to be remedied, largely from the perspective of the Global North. This important work provides opportunities for building momentum toward visioning and building equitable low carbon cities, but the gap analysis needs to translate into design principles, governance practices, and engagement tactics for a JUT with a global perspective. What does it mean programmatically and politically to develop and implement an agenda for a JUT? How should we pursue, recognize, and measure a JUT? In synthesizing and evaluating the literature in this area we hope to provide a foundation for further research that will support decision makers and engage more seriously with the processes, actors, and structures that shape transitions to alternative urban futures.

We begin by examining the different strains of justice scholarship (environmental, energy, climate, urban) that are informing and should inform JUT. We then turn to a discussion of just transitions in general, tracing the history of the term and current understandings in the literature. These two explorations provide a foundation for considering scholarly and policy JUT agendas and identifying what we still need to know in order to recognize, study, and foster JUT.

## 2 | FOUNDATIONS: ENVIRONMENTAL, CLIMATE, ENERGY, AND URBAN JUSTICE

Diverse conceptions of justice have informed our understanding of the distribution of environmental burdens and amenities, climate change exposure and responsibilities, the relationship of various communities to energy systems, and the form and function of cities. In this section we provide a brief synthesis of this scholarship with an eye toward informing a research and policy agenda centered on JUT.

### 2.1 | Environmental justice

The environmental justice movement and scholarship first brought attention to the disproportionate environmental burdens borne by poor and minority communities in the United States (Bullard, 1993; Lester, 2001). The movement gained momentum during 1980s when communities organized to protest

the repeated siting of polluting factories and waste site in predominately black neighborhoods and indigenous peoples' reservations...During the 1990s the environmental justice movement developed in the United Kingdom and Europe. There, the focus became less centered around racial minorities and more specifically linked to social inequality, specifically the disparities between environmental conditions experienced by the richest and poorest sectors of society (Stephens & Church, 2017).

Environmental justice seeks to overcome any phenomena that expose marginalized groups or communities to unequal and unfair environmental burdens (Agyeman & Evans, 2004; Schlosberg & Carruthers, 2010). The experience

and understanding of environmental justice can vary across different scales—ranging from justice for people, justice for communities, and justice for non-human environments (Schlosberg, 2013). In 1992, the U.S. Environmental Protection Agency established its Office of Environmental Justice and defined environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

At its core, studies and discourses of environmental justice are concerned with identifying the scale and drivers of the (mal)distribution of environmental burdens and amenities, drawing on the concept of distributive justice. Advocates and theorists of distributive justice generally define it as the fair and equal distribution of environmental goods, costs and benefits to all members of society, with an emphasis on improving the welfare of the least advantaged in society. Bell (2004) suggests some useful questions to construct claims around key issues in distributive justice: (a) Who are the recipients of environmental justice?; (b) What is to be distributed?; and (c) What is the principle of distribution?

Research has shown repeatedly that poor, marginalized, and minority communities are likely to face higher levels of air pollution and exposure to contamination, pay more for environmental amenities such as clean water, and have less access to green space (Boone, Buckley, Grove, & Sister, 2009; Boone, Fragkias, Buckley, & Grove, 2014; Konisky, 2009; Morello-Frosch, Pastor, Porras, & Sadd, 2002; Morello-Frosch, Zuk, Jerrett, Shamasunder, & Kyle, 2011; Olive & Rabe, 2016; Teodoro, 2018). More recent work seeks to go beyond the analytical framework of proximity to environmental harms and benefits to examine how environmental outcomes and decision-making shape people's capabilities, risk, and vulnerability (McCauley & Heffron, 2018).

Though distributive justice is often a dominant frame for analysis, environmental justice also includes notions of procedural justice and justice as recognition (Fraser, 2001; Walker, 2012). Even if resources and opportunities could be distributed equally across society, distributional principles often fail to address the pluralist (and oftentimes contradicting) needs of communities (Castán Broto & Westman, 2017; van Steenberg & Schipper, 2017). In other words, a purely distributional notion of justice can be problematic by flattening identities and failing to recognize the uniquely different needs of marginalized publics. Overlooking such needs is argued to not only neglect the diversity and intensity of needs, but to inadequately account for the social, cultural and institutional processes that exclude certain actors from fully reaping the benefits of distributed goods or resources (Schlosberg, 2007).

Procedural justice centers engagement and participation in environmental decision-making processes (Boone, 2008; Ikeme, 2003; McCauley & Heffron, 2018) or “fairness in procedure or process” (Walker, 2012). This shifts the focus away from purely outcome-based assessments to examine the means by which decisions were made, whose voices were heard, and what opportunities were available to influence the outcome. Procedural and distributive justices are often lined, as “More inclusive, collaborative, democratic forms of governance have the potential to yield more racially equitable outcomes” (Stehr, 2015).

Justice as recognition further expands the discussion of who is burdened by environmental degradation by asking more fundamental questions of who is or is not valued in a region, policy domain, or program (Walker, 2012). Justice as recognition recognizes the historical contexts that created inequalities in the first place and contribute to unequal distributions (Nozick, 2000). Recognition in this context is defined as a “relationship, a social norm embedded in social practice” (Schlosberg, 2007, p. 23), so it cannot be assumed or subsumed under distribution simply because it is not something to be distributed. Justice as recognition focuses on the recognition (or non-recognition) of the pluralist needs and desires of various groups, highlighting the prejudice and discrimination that can be triggered in these spaces. Without such recognition, injustices in the form of prejudice and discrimination have the potential to be uprooted. Cultural and institutional processes are typically at the root of these injustices in that they explicitly or implicitly give particular individuals or groups unequal recognition (Walker, 2012). Justice as recognition is thought to create more inclusive, collaborative and democratic forms of government to better engage and recognize pluralist needs, issues and solutions to justice (Nussbaum, 2003; Sen, 1980). Since recognition is not something that can be distributed, efforts to enhance recognition typically focus on identifying and changing the social contexts that undermine self-respect within a particular group and prevent them from being fully empowered and valued within a community (Schlosberg, 2007).

Environmental justice has become a relatively large concept in which the dimensions or components of justice (distributive, procedural justice and justice as recognition) can be used to evaluate particular policies, processes, and decision-making outcomes. Environmental justice is a lens through which analysts and policy-makers can assess where the costs of environmental degradation, and benefits of environmental amenities, fall and why. This literature has proved to be a touchstone and as is clear in the following sections, notions of climate justice, energy justice, and the just city use and build upon these dimensions of justice in their respective domains.

## 2.2 | Climate justice

Climate justice scholarship has evolved alongside, and been heavily influenced by, environmental justice. Climate justice scholars have argued that at a global scale the responsibility for, and vulnerability to, climate change are not equally distributed, and the impacts of climate change raise questions around intergenerational justice (Barnett, 2006; Meyer & Roser, 2010). These issues of justice have gained traction in international climate change policy arenas, raising questions about the rights of countries to continue emitting greenhouse gases, and the responsibilities of more developed countries to support mitigation and adaptation efforts in less developed countries (Okereke, 2010). Climate justice scholarship has largely been normative, theoretical, and global, with limited attention to applicable criteria or operationalization. Where the environmental justice movement has roots in risk mitigation, climate justice scholarship has largely focused on global dynamics of rights and responsibilities.

Local and urban articulations of climate justice more closely resemble environmental justice, with a focus on inequitable vulnerabilities and the importance of local participation and engagement (Harris, Chu, & Ziervogel, 2018; Hughes, 2013; Matin, Forrester, & Ensor, 2018; Meerow & Newell, 2016; Schlosberg & Collins, 2014; Shi et al., 2016). In practice, climate change planning processes often fail to meaningfully include or engage marginalized groups (Anguelovski et al., 2016; Hughes, 2015; Schrock, Bassett, & Green, 2015). For example, Bulkeley, Carmin, Castan Broto, Edwards, and Fuller (2013) examine the articulation of justice in urban responses to climate change, focusing on distributive and procedural elements. They find only a small number of cities make explicit reference to justice, with a bit more attention to justice from cities in the global North. They also find cities give greater attention to justice in adaptation policy and planning rather than mitigation. This is crucial, because in formulating and pursuing JUT, it is necessary to consider how justice operates in transition—in the process of creating a low carbon city—not only in local responses to climate impacts.

In their work, Bulkeley et al. (Bulkeley et al., 2013; Bulkeley, Edwards, & Fuller, 2014) have begun to take on this task and have sought to distinguish the characteristics of cities that are relevant for climate justice, which has historically had a global focus. They argue that attention to *urban* climate justice has both local and global importance. Locally, urban form and governance shape the distribution of climate risks and vulnerabilities, as well as rights, responsibilities, and the ability to participate in decision-making. This fact has also been recognized by scholars of urban hazards and disasters (Cutter, Boruff, & Shirley, 2003; Cutter, Holm, & Clark, 1996). Globally, cities represent the “articulation of justice in particular places and contexts,” with analytical and theoretical implications; shifting climate justice to the urban scale shifts the subject from the nation state to a broader set of actors that include but extend beyond the state (Bulkeley et al., 2013). The urban scale, they argue, also foregrounds issues of recognition as well as rights and responsibilities by identifying how climate change responses relate to existing structural inequalities. “Climate change is not simply happening *to* cities, but rather is being produced through the city and in turn serving to reproduce or challenge existing forms of uneven development and urban inequality (Bulkeley et al., 2014).” In this sense, climate change interventions can be pursued in service of the development of more just cities (Newman, Beatley, & Boyer, 2009).

Ideas of climate justice, considered globally and in the urban context, apply many of the principles of environmental justice to the climate change domain. The characteristics of climate change make questions of responsibility (at both the global and local levels) rise to the forefront and climate impacts (rather than direct pollution sources) become the key source of potential inequality to be addressed. What is still needed for JUT is the forward looking perspective and incorporation of justice and equity not only into strategies for addressing climate change impacts, but also into the process of building low carbon cities.

## 2.3 | Energy justice

Scholars have recently focused explicitly on energy production and consumption as issues of social and environmental justice. Energy justice research has demonstrated the disparities in access to energy efficiency technologies, the energy insecurity that comes from struggling to meet basic household energy needs, and the issues of distributive and procedural justice often found in renewable energy planning and deployment (Hernández, 2015; Reames, 2016; Reames, Reiner, & Stacey, 2018; Salter, Gonzalez, & Warner, 2018). Energy justice evaluates where vulnerabilities or injustices emerge in energy systems, who is affected or ignored, and what processes exist for remediation to reveal and reduce injustices induced by these systems (Jenkins, McCauley, Heffron, Stephan, & Rehner, 2016; Sovacool & Dworkin,

2015). Scholarship at the global scale views energy justice as “a global energy system that fairly distributes both the benefits and burdens of energy services, and one that contributes to more representative and inclusive energy decision-making” (Sovacool, Burke, Baker, Kotikalapudi, & Wlokas, 2017, p. 677). At the local scale, spatially driven disparities in energy access and structural energy insecurity (produced by physical deficiencies of buildings) link energy justice to larger drivers of inequality (Bouzarovski & Simcock, 2017; Reames, 2016).

Principles and frameworks for energy justice largely reflect the core elements of environmental justice. For example, Hernandez (2015) set out four key principles of energy justice that highlight its key dimensions: the right to healthy, sustainable energy production; the right to best available energy infrastructure; the right to affordable energy; and the right to uninterrupted energy service. Sovacool et al. (2017) propose an energy justice decision-making framework that accounts for the distribution of high quality and affordable energy resources, inclusive and transparent decision-making, and recognition of inter- and intra-generational rights and intersectional identities.

As in the case of climate justice, energy justice scholarship is just beginning to tackle questions around justice in transition and charting visions of a just and equitable energy system. This includes confronting important differences in the principles and practices of energy just in different geopolitical contexts. As Castán Broto, Baptista, Kirshner, Smith, and Alves (2018) point out, “current theorizations of energy justice tend to build upon universalist notions of justice within a western tradition of thought, which may not be entirely appropriate to deliver policy in postcolonial contexts.” A growing body of literature is developing and leveraging concepts of energy justice in postcolonial and Global South contexts (Bouzarovski & Simcock, 2017; Siciliano, Urban, Tan-Mullins, & Mohan, 2018; Yenneti & Day, 2015, 2016), but more work in this area is needed. Further, while the focus of energy justice on a single sector, and lack of an activist past, may provide a more streamlined framework in some ways for addressing injustice and responding to climate change (Jenkins, 2018), from a JUT perspective, its limitation to one sector (energy) neglects a broader interconnected landscape of urban transitions and transformation.

## 2.4 | Urban environmental planning and the just city

Cities have historically been, and continue to be, sites of heightened social injustices and disparities, from involuntary displacement (Gans, 1962) to destructive redevelopment programs and policies (Jacobs, 1961) and uneven investment for urban revitalization projects that have created and exacerbated social and spatial inequities (i.e., Ehrenfeucht & Nelson, 2018). These injustices are further amplified by the disproportionate impacts of climate change and sustainable development on the most marginalized communities, groups that bear the greatest burden of environmental risks and vulnerabilities (Bene et al., 2018; van Steenberg & Schipper, 2017).

The “just city” is held up as an alternative to existing urban governance and policy processes and their failure to deliver democracy and civic engagement (Perry & Atherton, 2017). In her book, *The Just City*, Susan Fainstein outlines three key dimensions: democracy, diversity, and equity, noting that “environmental sustainability” would be a component of urban justice in “a more expansive investigation” (Fainstein, 2010, p. 58). In Fainstein's framework, democracy refers to devolved and open decision-making processes (what could be considered procedural justice); diversity refers to tolerance of difference and integration of minority groups (what could be considered justice as recognition); and equity refers to the accessibility of amenities and services such as affordable housing, and low levels of economic inequality (what could be considered distributional justice). Fainstein applies the framework to the housing and development policies of New York City, London, Amsterdam, finding that Amsterdam ranks highest across the three dimensions.

Scholars have also highlighted the important role that knowledge production and mobilization plays in producing the just city. The processes and procedures for knowledge production (in the form of defining problems or generating solutions) in cities can shape conceptions of justice and the framing of the just city. For instance, May and Perry (2016) propose giving greater attention to the actors and beneficiaries of knowledge to understand whose interests are being served, and excluded, by the production of knowledge. This becomes important when engaging with marginalized or alternative knowledge and their ability to shape outcomes in cities. Knowledge for the just city, then, becomes a process of learning and producing shared knowledge about justice beyond those held by the status quo: “the search for just and environmentally sustainable futures requires organizing cities in such a way as to connect knowledge about an area to the capacities and capabilities to make desired changes” (May & Perry, 2016, p. 30). Addressing recognition also entails building greater recognition of the diversity of needs, wants and desires through ethnic, racial and socio-economic differences (Fainstein, 2014).

The notion of the “right to the city” developed by David Harvey introduces a rights-based conception of urban politics and justice, noting that “the right to the city is not merely a right of access to what already exists, but a right to change it” (Harvey, 2003). More recent scholarship in urban planning has focused on the potential utility of more compassionate and emotional approaches to planning as a means of fostering meaningful engagement and envisioning alternative futures (Lyles & White, 2019; Lyles, White, & Lavelle, 2018; Wamsler et al., 2018).

There is less consensus, however, over how or even whether a just city can be realized. Notions of justice often remain as abstract values that serve as a representation of nuanced and highly varied processes and communities (Perry & Atherton, 2017). Scholars have identified potential limits of local action to address the highly structural nature of inequality (Mossberger, 2009; Peterson, 1981), but nonetheless “a change in the rhetoric around urban policy from a focus on competitiveness to a discourse about justice can improve the quality of life for urban residents” (Fainstein, 2014). Some have proposed alternative models of urban governance and economies rooted in community and democracy (Imbroscio, 2010). While there is a robust literature on planning strategies for more environmentally sustainable cities (Beatley, 2011; Beatley & Manning, 1997), there are typically few explicit links to environmental or climate change concerns in scholarship on the just city (Carmin, Roberts, & Anguelovski, 2009; Mazmanian & Kraft, 2009). This is an area to seriously explore in thinking about JUT, because it is possible that climate action could become a vehicle for realizing a just city.

## 2.5 | Lessons from the justice literatures for JUT

The main thrust of justice scholarship (here we include environmental, climate change, energy, and urban justice) has been the evaluation and elevation of distributional problems and the development of principles for decision-making and policy. The foundational work of environmental justice scholars and activists has been a consistent foundation for scholarship and activism in other areas. This important work has used the concepts and analysis of justice to remedy wrongs and improve decision-making. It is clear from these literatures that it is crucial to consider projections of the distribution of costs and benefits of not just the effects of climate change but also those of the actions proposed to pursue a low-carbon transition, and the importance of inclusive planning and decision-making at early stages. These literatures also highlight the distinctions in the challenges and conceptions of justice in the Global North and South, with some cities needing to focus on energy access and stability and others on the transformation of energy sources. It is clear that the principles of distributive justice, procedural justice, and recognition must be the broad parameters of planning a JUT, and that there is no single solution or recipe for cities to adopt.

The challenge for thinking about JUT is that justice scholarship has been mainly retrospective, with static evaluation, and focuses on redressing harms rather than identifying and elaborating on agency in the process of change moving forward. JUT is and must be agential and forward-looking in ways that the justice literatures are not yet foregrounding, which makes it difficult to turn insights from this work into design principles or clear recommendations. To address this gap, we turn next to the growing literature on just transitions.

## 3 | JUST TRANSITION: A NEW, OLD IDEA

The term “just transition” has multiple origin stories. It was first used by global trade unions in the 1980s to promote the development of new energy industries in a way that accounted for any negative effects on communities and livelihoods (McCauley & Heffron, 2018). In this sense it has incurred a strong association with the labor movement, and the specific social and economic fallout for coal-dependent communities and workers.

A second origin story for “just transition” (or perhaps justice in transitions) is that it was coined recently by scholars as a reaction to a lack of attention to issues of justice and power in sustainability transitions research (van Steenbergen & Schipper, 2017). Transition theory seeks to understand how and when systems undergo a significant change from one state to another, with an emphasis on change management or steering. It focuses on the trajectory of change and seeks to uncover the origins, patterns and mechanisms that mobilize these transitions. In the past, questions of justice have not been foregrounded in transitions research. This is beginning to change, with new research engaging with issues of justice and power in the transition process (Avelino & Rotmans, 2009; Smith & Stirling, 2010). There has been an increasing recognition of the need to address the political dimensions of transitions and to ensure that such transitions are (socially and environmentally) just. Because of the nature of transitions, van Steenbergen and

Schipper (2017, p. 2) state that “one is automatically entangled in moral and ethical questions.” They argue that justice should be understood as a process, as opposed to an end point, meaning that justice should be “an essential and integral part of systemic change” (p. 8). An explicit approach to incorporating justice in the transitions literature has been referred to as *justice in transitions*.

Beyond transition theory, scholars now see justice as necessary for transformative change to occur (Agyeman, 2008; Patterson et al., 2018). Newell and Mulvaney (2013), for instance, approach just transitions to a low-carbon future from a political economy perspective, focusing on issues related to labor and energy justice, as well as notions of climate justice and vertical forms of environmental justice. They argue that there is a need to understand “who defines what is just and for whom” (Newell & Mulvaney, 2013, p. 138) and how these questions are related to existing power structures in different contexts. More recent work by Jasanoff reiterates the need to consider justice in energy transitions from a global, planetary-boundary perspective. She echoes earlier calls for more social science research and calls for more humility, specifically humility in how we value science and technology and their reach, as a possible solution to the uncertainty, ignorance and inequity of energy and sustainability policies (Jasanoff, 2018). Jasanoff also argues that transformative solutions to climate change, whether a question of an energy transition or otherwise, will not be fostered if we do not also transform the way we define and conceptualize the problem.

Finally, some see “just transition” as a new concept that serves to bring together previous scholarship on climate, energy and environmental justice (McCauley & Heffron, 2018). These scholars define just transition as “a fair and equitable process of moving toward a post-carbon society” that is urgent because of the pace of action on climate change that is needed. In addition to distributional and procedural justice, they introduce a third dimension termed “restorative justice.” Restorative justice, with roots in criminal law, is intended to repair the harm (i.e., environmental damage) that has been done to an individual and bring perpetrators to justice. All three dimensions are argued to be needed for any societal transition away from a neoliberal economy to a more just, post-carbon economy (Heffron & McCauley, 2018).

While broad principles and frameworks for just transitions in the context of climate change are proliferating, there is still much work to be done to identify, specify, and measure just transitions. The strength of the just transition approach is the recognition that equity and fairness need to be accounted for during a transition and that justice is a context parameter for policy and program design. Just transition scholarship has made good progress in identifying the inherent political tensions of such transformations, but there is much to learn about the role and location of agency in just transitions and the development of strategies for charting new paths. Further, just transitions research is not often focused explicitly on the urban context. This can limit the applicability of the insights and frameworks for urban leaders and stakeholders by failing to account for the particular institutional, political, social and economic dynamics and challenges of the urban context.

## 4 | JUST URBAN TRANSITIONS: CHARTING A WAY FORWARD

The concept and agenda of JUTs integrates two key elements of previous scholarship and activism: (a) The concept and agenda of JUTs integrates two key elements of previous scholarship and activism: (a) the justice principles of process, distribution, and recognition and (b) the analytical focus of just transitions on change processes, alternative futures, and political and structural tensions in the pursuit of just transitions. A research and policy agenda for JUT integrates these two elements and foregrounds the role of agency in the pursuit of alternative futures: cities where the distribution of environmental risks, harms, benefits, and vulnerabilities do not disproportionately burden marginalized groups; where decision-making is open, transparent, engaged, and democratic; and where policies and programs recognize and seek to remedy structural inequalities and prior injustices. The focus on transition requires that we face squarely the challenge of agency and change, the development of alternative futures, and the navigation of uncharted territory.

Pursuing a JUT engages multiple actors in multiple and varied contexts. It places new demands on decision makers and residents to identify vulnerable communities and facilitate broad and meaningful participation (Berke & Lyles, 2013; Boswell, Greve, & Seale, 2019). The urban context foregrounds questions of governance, decision-making, and community building that are multilevel and multi-actor. Applying the principles and ideas of just transitions to the urban context requires increased attention to variation and specific attention to process and vulnerability and governance, state and non-state actors. Pursuing JUT presents a challenge to existing power relations, and requires a reconfiguration of power and political barriers and empowerment of new actors.

Shifting from an evaluative perspective to a change and process-oriented perspective is critical for forwarding a JUT research and policy agenda (Figure 1). Scholarship should not focus solely on raising awareness of wrongs that need to

*Priorities for JUT Research and Practice:*

- Engaging JUT perspectives and experiences from Global South
- Understanding agency, authority, and accountability in JUT
- Developing tools and capacities for JUT
- Measuring and identifying JUT in varied forms and contexts



**FIGURE 1** Conceptual representation of just urban transition (JUT) and some priorities for JUT research and practice

be righted, or of the need or contributions of urban climate action. Rather, scholars should use the principles of justice to generate a deeper engagement with the political, institutional, social, and economic forces and counter-forces that shape and reshape urban trajectories and identify the policies and processes best positioned to create and support new urban visions. The pursuit of JUT is not exclusively concerned with remedying past injustices, but includes the larger challenge of addressing structural inequality, building broad coalitions, and recognizing interdependencies as cities pursue a low carbon future. Cities and city networks are already experimenting with such an agenda, and scholars of climate change, justice, inequality, and urban policy and development are well positioned to support and foster this work.

A scholarly JUT agenda requires not just frameworks and criteria, but research that takes seriously the agential dimensions of transition, the multiplicities of urban politics and governance, and the dynamic, increasingly global interface between scholars and practitioners. Key questions are:

- How should we pursue, recognize, and measure JUT? The diverse principles of justice and equity that have animated the environmental, climate, energy, and urban justice literatures and movements provide parameters for JUT, but not a roadmap or recipe for it. Scholarship, with an emphasis on the co-production of knowledge *with* urban communities and networks, can play a significant role in developing more concrete indicators and strategies for pursuing, recognizing, and measuring JUT.
- What are the political and programmatic strategies for JUT, who are the actors, and what tools are available? Similarly, it is not clear where or from whom JUT policies and strategies are likely to emerge. This will likely vary from municipality to municipality and different in the global North and South, but scholarship should be focused on what combinations of governmental and non-governmental actors from urban areas and beyond are likely to be the source and supportive coalitions for JUT.
- How much variation is there between cities in the visioning and implementation of JUT? JUT will not be the same across cities because what counts as the just low carbon city will vary. This variation itself needs to be the focus of study—both within the global South and North and comparisons of cities in the global South and global North.
- Who is accountable for JUT and by what measures should they be evaluated? As JUT is pursued, accountability will be a crucial aspect of maintaining momentum through transition. It will, in particular, be important to ensure the actors are held accountable for pursuing the goals of JUT, not just the procedural trappings of policy making and governance (Park & Kramarz, 2019).

Answering these questions will take interdisciplinary and international coordination and collaboration, and financial and institutional support. It will also require engaged research that foregrounds and supports the work being done by communities and practitioners as they put forward a JUT agenda. Given the increasing centrality of cities to lives and livelihoods around the world, the growing inequality in our cities, and the real and potential leadership of city governments on climate change, the JUT agenda is critical and timely.

## CONFLICT OF INTEREST

The authors have declared no conflicts of interest for this article.



## AUTHOR CONTRIBUTIONS

**Sara Hughes:** Conceptualization; investigation; project administration; resources; supervision; and writing-original draft, review and editing. **Matthew Hoffmann:** Conceptualization; investigation; supervision; and writing-original draft, review and editing.

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## ENDNOTE

<sup>1</sup> There are multiple interpretations of the phrase “just transition,” which we elaborate in our discussion of that literature. We use the phrase to indicate the foundational change necessary to realize just, low carbon cities that includes but extends beyond addressing the needs of labor.

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