Contesting Climate Justice in the City: 
examining politics and practice in urban climate change experiments

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This paper provides a useful forum to develop and share ideas. It does however represent work in progress and draws from other documents that are also in preparation and should not be cited without permission.

Introduction

Over the past two decades, scholars from a range of disciplinary backgrounds have become increasingly interested in the urban governance of climate change. Initial accounts which documented and described how cities were responding to climate change have given way to an increasingly diverse and sophisticated body of work that considers different forms of governance architecture (multilevel, transnational), the multiplicity of actors and forms of authority at work in the city, and has moved beyond a focus on mitigation to also consider forms of adaptation in the urban arena (for a review, see Bulkeley, 2010). Despite the growing diversity and complexity of this body of work, to date there has been relatively little scholarship that has considered questions of accountability and of allocation; what one might term matters of procedural and distributive justice.

Within the Earth System Governance project, issues of allocation are considered to be central to global environmental governance, which is seen, “as is any political activity, [to be] about the distribution of material and immaterial values. It is, in essence, a conflict about the access to goods and about their allocation—it is about justice, fairness, and equity.” Accountability, meanwhile, relates to the “democratic quality of earth system governance” and draws our attention to the need to consider the sources, effects and designs for accountability and legitimacy within earth system governance. In this paper, drawing in part on initial ideas presented at the 2011 ESG Conference in Colorado (Bulkeley et al. 2011), we seek to bring together notions of allocation and accountability in order to consider how, why and with what effect the urban governance of climate change is leading to the articulation of particular forms of what we term ‘climate justice’.

At the international and national scales of climate change politics, significant debates have taken place over both allocation and accountability. In terms of the former, the debate has been cast primarily in terms of responsibilities and rights – or of who should gain what and at the expense of whom. Accountability, in turn, has usually been considered in relation to its legitimacy, and complex arguments have emerged as to how and by whom decisions should be taken in order to meet standards of ‘democratic’ accountability in the absence of a readily identifiable constituency for global decision-making. While broadly similar concerns of distribution and procedure arise at the urban level, we suggest that bringing climate and justice to bear within the city throw some of these issues into different relief while also raising other possibilities and limitations that go beyond existing frameworks. In so doing, our paper is not concerned with identifying ideal principles for a just urban response to climate change, but rather in examining how notions of justice (variously cast as fairness, equity, legitimacy and so on) are engaged in the politics and day-to-day practices of urban responses to climate change. In other words, we suggest that urban responses to climate change are always and already engaging notions of justice, and that these engagements are critical to the ways in which they come to have effect and are contested. Importantly, given the multiplicity of actors involved in governing urban climate change responses in the city, this means that the articulation
and extension of climate justice in the city exceeds the formal arena of municipal actors and policy making. This in turn raises questions about the practice of climate justice in the city, and the potential for more progressive forms of justice to be taken into account.

In the first part of the paper, we develop a framework through which to consider the distributive and procedural aspects of climate justice as they relate to urban responses. We situate this account within the broader debates on climate and justice that have emerged at the international and national scales, and argue that while notions of responsibilities and rights are central to any account of climate justice, these must be accompanied by the notion of justice as recognition (Fraser, 1997, 2009). In the second part of the paper, we consider how notions of climate justice are framed and enacted in climate change ‘experiments’ in Bangalore, Monterrey, Hong Kong, Philadelphia and London. At this initial stage of our analysis, which draws on three concurrent research projects being undertaken at Durham University¹, we provide only a short discussion of our ideas in relation to each of these projects, which will form the basis for further work and development as this paper evolves over the next six months. With this in mind, in the place of firm conclusions we offer some preliminary thoughts about the ways in which notions of justice are shaping urban responses to climate change, and their potential implications.

**Climate Justice and the City**

Historically, mirroring the focus of both international politics and the core focus of the global environmental change research community, analyses of questions of justice and climate change have tended to concentrate around the issue of mitigation and on the rights and responsibilities of GHG emissions reductions. The emergence of climate change adaptation on the international scene has been one means through which this picture has become more complicated, but the realisation that states are not the only entity to which rights/responsibilities might be ascribed has also served to disrupt any straightforward analysis of what a just response to the climate change problem might mean. Nonetheless, the focus has primarily been on these broadly distributive issues. More recently, debates that have sought to draw attention to notions of the legitimacy and transparency of decision-making have also raised questions about who has the right to participate in climate governance. From these broad starting points, we examine here the ways in which both distributive and procedural justice matter in urban climate governance, and argue that we need to move beyond a consideration of rights and responsibilities to engage with the concept of ‘recognition’, which gives due consideration to the social, cultural, and economic inequalities within which the pursuit of rights and attribution of responsibilities must be contextualised (Fraser, 1997).

*From the distribution of rights and responsibilities towards the recognition of urban inequalities*

At both international and national levels, justice has predominantly been framed in distributive terms, either in terms of ‘rights’ to emit differing levels of GHGs or where ‘responsibilities’ to

ameliorate climate change through emissions reductions lie. More recently, as the need for climate change adaptation has been recognised, this rights/responsibilities framing of the justice debate has been extended. For instance, commentators have highlighted the right to be protected from (dangerous) climate change and on responsibilities for providing compensation (through, for example, climate change adaptation funding) for potential harm. In both cases, the scale at which justice is framed has been international, in terms of focusing on the nation-state as the locus and arbiter of rights and responsibilities, and intergenerational, in terms of considering implications for actions across different generations. While there has been broad acceptance of the principle that those with (most) responsibility for climate change should act first, the international agreements in this policy domain testify to the difficulty of operationalising this principle. Multiple confounding factors, including the kinds of GHG emissions involved, what might constitute necessary uses of energy or other GHG-related activities, and the timescales over which such calculations should be forged are just some of the challenges already encountered (Füssel, 2010, p. 600). In the adaptation arena, such challenges are made more complex by the uneven and uncertain geographies of both risk and culpability which play out not only in terms of who should bear the burden of any adaptation measure but where and for whom benefits from adaptation should be realised. Thus, while it is possible to identify two central duties with respect to climate change – the duty of mitigation (the duty to cut back on activities which cause climate change) and the duty of adaptation (the duty to devote resources to protect people from the ill effects of climate change) (Caney, 2010) – allocating responsibility for fulfilling these duties remains highly contested within the international arena. In short, the question of how to distribute both the benefits and the burdens of climate change mitigation and adaptation is increasingly fraught.

While such discussions of the distribution of the responsibilities and rights of mitigation and adaptation have traditionally taken place against a backdrop of a world divided into the political units of the nation-state, insights from the earth system governance community and beyond have challenged this geography of environmental governance (Bulkeley, 2005). In effect, the conceptualisation of the state as the locus of just distributions of climate responsibilities and rights serves as a ‘container’, effectively sealing boundaries and smoothing internal divisions in terms of where duties, burdens and benefits might fall. But Harris (2010, p. 215) argues that one consequence of this model is that it “fails to account for rising greenhouse gas emissions among affulent people in less responsible states of the developing world.” As he goes on to argue, “one important implication of this is that solutions to climate change will have to include hundreds of millions of affluent people in the global South, alongside most people in the North, if they are to capture the impacts of as many of the sources of global warming as will be required to mitigate future impacts significantly” (Harris, 2010, p. 219). This raises two important distributive justice questions at the urban scale. First, it points to the possibility that cities may have differential rights and responsibilities to those of the nation-states within which they are located. Arguably, for example, the relatively low per capita emissions of citizens in some cities compared to others calls for national policies and measures that are able to take this into account. Secondly, it suggests that there are likely to be important forms of difference within cities in terms of where the duties, burdens and benefits of addressing climate change could and should lie. In short, Harris’ observation points to the multiple forms that climate justice might take within the urban arena.

Attending to the multiple geographies of climate rights and responsibilities is one way in which we can start to engage with the ways in which urban responses to climate change may enact climate justice. At the same time, however, the shift in focus from the international to the urban arena helps to highlight some of the inadequacies of a framework of justice that remains rooted in predominantly liberal principles which fails to account for the structures and processes which shape inequality. As Aylett (2010, p. 492) argues, cities provide a context in which these debates are intensified still further:
“Cities are key sites where the social, the economic and the environmental come together in difficult decisions about economic growth and urban development. Struggles over urban environmental justice represent both a context and constituency that are already influencing these decisions and that need to be incorporated into our understanding of participation and climate.”

There is wide acceptance of the notion that pre-existing structural conditions (historical patterns of ‘development’ being the prime example) are key determinants of the relative rights and responsibilities of nation-states vis-à-vis climate change mitigation and adaptation. At the same time, however, debates about climate justice have done little to engage with the pre-existing or structural injustices manifest in cities. Work on environmental justice issues in cities, for example, has shown how “urban and environmental processes negatively affect some social groups while benefiting others” (Swyngedouw & Heynen, 2003, p. 901). The distributive focus of the rights/responsibilities framing of climate justice is one possible reason for this lack of engagement, since as Iris Marion Young (1990) argued, the distributive paradigm “obscures other issues of institutional organization at the same time that it often assumes particular institutions and practices as given” (Young, 1990, p. 8). In the broad literature on urban political ecology, scholars have pointed to the ways in which socio-environmental systems serve as a means through which power is exercised and exploitation enacted (Swyngedouw & Heynen, 2003; e.g. Kaika, 2003; Roberts, 2008). Such processes serve to structure urban political economies, relations of power within them, and opportunities for protest and alternatives. Accounting for these dynamics involves framing the discussion of what constitutes a just urban response to climate change rather differently, for instance in terms of whether such interventions serve to maintain the interests of an elite at the expense of a minority, and as such perpetuate patterns of inequality in the city (Young, 1990). Here, Fraser’s notion of justice as recognition is particularly useful, for it provides a means for acknowledging that socio-economic injustices are fundamentally linked to “cultural or symbolic injustices” (p. 14) which fail to give adequate recognition to certain groups (such as women, the working class, or particular racial or ethnic groups). In the context of pre-existing injustice, as Fraser argues, “justice today requires both redistribution and recognition” (Fraser, 1997, p. 12, emphasis in original); that is, in order to enact justice, any attempt at forms of redistribution must always engage with the often inequitable contexts within which existing forms of distribution and the design of new forms of redistribution take place. Matters of climate justice must therefore be regarded as involving not only issues of responsibilities and rights but critically, matters of recognition.

**Procedural justice: making climate change legitimate?**

While debates over the justice implications of climate change have tended to focus on matters of distribution, this has not been to the exclusion of all considerations of what is often termed ‘procedural’ justice – that is, of who should take decisions over what, by what means and on whose behalf. To date, like those debates on distributional justice, attention has focused on the formal processes of international decision-making over climate change and discussions about how such processes can be made more transparent and legitimate. There are multiple arguments here, which we do not rehearse, concerning the legitimacy or otherwise of decisions that have been subject to some level of democratic scrutiny and the extent to which it is possible to recreate or make up for the lack of an explicit political community to which democratic rights are owed in order to ensure that decision-making is legitimate. Numerous concerns have also been raised about the extent to which such processes are subject to the sway of particular interest groups, including both those who advocate more stringent responses to climate change and those that seek to campaign against any such action, and here too debate has raged to and fro as to what the basis of such processes might be in terms of to whom such groups may be held to account. In the adaptation arena, researchers
have similarly pointed to the critical implications of the design of policy responses and to who has access to them, and the implications for the uneven patterns of participation in decision-making procedures (Paavola & Adger, 2006). Across both mitigation and adaptation, therefore, there is a strong focus on the right to participate – who has it, and how it should be exercised.

While much attention of this kind has focused on the international arena, there is a new found recognition of the multi-level nature of climate change decision-making, particularly in the adaptation community. For Paavola and Adger (2006, pp. 605-606) this means acknowledging that there are two critical decisions around which logics of participation should be guided: “determination of what constitutes dangerous climate change for the purpose of setting the safe maximum standard and determination of who is vulnerable for the purpose of allocating assistance. The former issue is pertinent to the international level of decision making and the latter one involves interactions between local, national and international actors.” If it can be taken that nation-states are the arbiters of forms of distributive climate justice, this argument may hold. However, once this boundary is subject to scrutiny, it is no longer apparent that such a form of procedural justice would be adequate. Rather, both mitigation and adaptation begin to open up to a need for a multilevel framework for procedural justice. This would suggest that there is a potentially critical role for cities as an arena within which some form of procedural justice concerning how decisions about the nature, extent and form of climate change responses could take place. Indeed, it has often been for their character as the ‘level of decision-making closest to the people’ (Local Agenda 21, 1992) that cities have been celebrated as a site for climate governance. In practice, however, there has to date been little examination of whether and if so how cities have been able to realise this laudable aim as a place in which the right to some form of procedural climate justice can be exercised.

Furthermore, while matters of procedure are often articulated only in terms of rights to participate, the challenge of recognition is never very far behind. As Paavola and Adger (2006, p. 607) argue in their account of ‘fair adaptation’, alongside principles of avoiding dangerous climate change and responsibility for future harm, a just response to climate change requires the ‘principle of putting the most vulnerable first’, not only because this in turn “justifies progressive redistribution to those who are most in need” but also because it “provides a guideline for resolving dilemmas of procedural justice, suggesting that all affected parties have rights, which have to be respected by recognition and participation”. In other words, for Paavola and Adger, procedural justice rests not only on the right to participate, but on the principle of justice as recognition and in turn of the ways in which forms of inequality may already serve to exclude those who have the most need to participate in decision-making. There are of course many of challenges to realising this in practice, and real (climate) life is very far from the ideal speech situation. What is more, there are significant challenges in recognising where responsibilities for which kinds of decisions should lie, and of the sorts of procedures that can adequately take account of an uneven (urban) landscape of both rights and responsibilities for making climate decisions fairly. To take just one example, creating “institutionalized participatory processes initiated either by government, NGOs or researchers” may mean that “more decentralized, informal participatory channels that may already exist in a given community” (Aylett, 2010, p. 482) are ignored as adequate forms of participation. On the other hand, without recognising that responsibilities to decide and to act in relation to climate change are also differentiated, those who may have the most capacity and accountability for action may evacuate the decision-arena, leaving only those with moral concern but limited means to carry forward responses.

Rather than seeking to offer one set of justice principles that should outweigh others, our discussion here has focused on the multiple dimensions of the climate justice problem and on how these are thrown into particularly stark relief once questions of climate governance come to be considered at the urban scale. Examining climate justice in both its distributive and procedural guises (as the ‘A’s
of allocation and accountability within the ESG framework), we find that at stake are issues not only of responsibilities and of rights (both to avoid burdens and enjoy benefits), but of recognition; of the need to adequately account for how existing inequalities structure and condition (in both positive and negative ways) forms of distributive and procedural justice. What emerges is not a meta-theory of climate justice, but rather a sense of its multi-faceted, interconnected and mutable nature; of principles that may endure but that are always in the making. In the context of the urban arena, this means that we find it impossible and unhelpful to divorce urban responses to climate change from the wider political economies and everyday practices of urbanism through which justice and injustice are forged, consolidated and challenged.

Considering climate justice beyond the state: urban climate change experiments

One of the key contributions of the ESG community over the past two decades has been to open up the sites and scales of climate governance to critical scrutiny. Amongst the attention that has been given to the role of ‘non-state’ actors in the governing of climate change, research has also focused on sub-national states, including cities and regional governments, as a critical but often overlooked site of climate politics. This debate has now become well-established, and even described as something of a ‘cottage industry’ (Hoffman 2011) by one commentator. There is, however, something of an irony here. While the interest in the role of urban responses to climate change has emerged from within the community of scholars that have sought to demonstrate that climate governance goes ‘beyond the state’, it has remained rather focused on municipal authorities – that is, on the state writ small. Perhaps because during the 1990s the phenomenon of individual cities signing up to global commitments and joining new forms of political association was such an unpredicted outcome of the emergence of climate politics that it required explanation, the role of non-state actors within the city was somewhat neglected. During the past decade, however, this state of municipal exceptionalism has been challenged by the growing range of private and civil society actors who have come to view the city as a site through which to exercise and address climate change, and by the growing interrelationship between state/non-state in forms of public private partnership and modes of urban service delivery. At least in some cities, a new mode of ‘strategic urbanism’ is at work, as public and private actors alike seek to respond to the low carbon transition, matters of energy security and issues of adaptation and resilience.

Alongside changes to urban planning and policy, this discourse about the responsibility and opportunity for cities to address climate change is giving rise to a range of new forms of intervention, or what in the Urban Transitions and Climate Change (UTACC) project we term ‘climate change experiments’. Such interventions are purposeful, in that they explicitly seek to address some facet of the climate change problem, and take the urban as either the means or rationale for such responses. That is, they regard cities as either particularly amenable to such interventions, as requiring some form of ‘improvement’ in relation to climate change, or as the constituency on whose behalf such interventions are being undertaken. They are experimental in as much as they explicitly seek either to undertake a novel approach or action, to trial or test out something, or to learn from it in order to undergo improvement or to share lessons with others. This is not an experiment in the traditional scientific sense of a ‘closed’ trial in order to compare, replicate and try again. Instead, these interventions are experimental in a more open, inquisitive sense – of being ‘experimental’ in tone, approach and attitude, as one might experiment with a new desert, outfit or piece of art.

In seeking to intervene in the city, we suggest that such experiments are a critical means through which the governing of climate change, and its associated politics and practices, takes place. In the remainder of this section, we examine different forms of climate change experiment in order to investigate the multiple ways in which notions of climate justice are framed and enacted within the
development and practice of experiments, and to consider the implications for an urban politics of climate change.

**Creating carbon responsibilities: Bangalore, Hong Kong and London**

Common across three of the experiments that we have examined in detail – a zero-carbon housing development in Bangalore (T-Zed), a series of behavioural change interventions aimed at improving energy conservation in Hong Kong (Climateers and PowerSmart), and the development of a ‘low carbon zone’ in Brixton, London – has been the creation of new forms of responsibility in relation to climate change. Across multiple policy domains, scholars from the governmentality tradition have pointed to the advent of discourses and practices as signifying forms of ‘advanced liberal government’. Where governing is seen to be accomplished through the conduct of conduct, forms of ‘self-government’ become critical as ‘subjects are responsibilized and given autonomy to act” in a manner consistent with such rationalities (Lockwood & Davidson, 2010, p. 394). Responsible citizens and consumers, those that may, for example, seek to manage their own carbon (Paterson and Stripple 2010), are charged with not only according with government directives, but seeking to establish and enact their own norms of self-conduct which enable them to participate in contemporary society. It is, therefore, perhaps unsurprising to find that rationalities and practices of ‘carbon responsibility’ pervade some experiments. We find that such forms of responsibility are located in at least two forms of agency: the individual and the community.

In the creation of new forms of ‘self-responsibility’ for carbon, we find with Paterson and Stripple “the ‘conduct of carbon conduct’, by which we mean a government of people’s carbon dioxide emissions that does not work through the authority of the state or the state system, but through people’s governing of their own emissions” (Paterson and Stripple 2010: 347). We add, however, that critical to these forms of conduct, and to the discourses of carbon responsibility that it effects, are intermediary organisations, technologies and daily practice that collectively serve to open and close notions of what it is that ‘the self’ is required to be responsible for in relation to climate change. Within the T-Zed project, for example, the developers BCIL believed that the innovative technical nature of the housing development needed to be accompanied of responsible inhabitants that engage and enable these technologies to work. As one BCIL worker highlights: “Making people believe in these technologies is another challenge [for BCIL]” (D9). In order to achieve this, BCIL developed a series of dispositions regarding everyday living in the compound that sought to demonstrate the accommodation between ‘green’ lifestyle and those which are aspirational in middle class, high-tech Bangalore. These included enacting a material control over lifestyle choices, through for example innovative fridges and AC systems, and automated control devices (called by BCIL conscience meters) were installed to make residents conscious of both their use of energy and its costs (environmental and economic). The central idea was that the design itself enabled a certain politics of life and residence in the compound. However, on occasions, BCIL felt it necessary to regulate the life in the compound directly. For example, they attempted to ban the installation of bath tubs in individual properties, as it was considered that this created an unsustainable demand of water and disrupted the collective design of T-Zed. On the other hand, BCIL accepted and even fostered some practices which some commentators have highlighted as socially unsustainable, such as the ‘maid culture’, by providing an additional room for the maid. Residents were invited to develop instructions about how to deal with water, waste and energy in their daily lives; other aspects of sustainable living were also considered: “we were supposed to think of guidelines for things like what detergents to use, what cleaning things to use and... what you can use in your gardens...” (R4). Yet, regulatory interventions by BCIL were perceived as unrealistic: “...a lot of people already have a tendency to look for organic vegetables... but do you really want to mandate that, knowing you can only have organic vegetables... I think at one time the idealistic view was that people would be doing that! [Laugh]” (RS). The creation of new articulations of ‘self-responsibility’
for carbon through experiments such as T-Zed are far from unproblematic and often contested. Nonetheless, such experiments represent political sites within which such notions are being put to the test.

Outwith forms of self-responsibility, scholars have also pointed to the ways in which ‘community’ has come to form a site through which conduct is governed, and scholars point to the ways in which the idea is in particular, used to invoke “a sense of ‘self-help’ and ‘self-reliance’ in which communities are encouraged to take responsibility for addressing policy issues such as climate change (Summerville et al. 2008 p.697)” (Bulkeley and Newell 2010). At T-Zed, discourses and practices of responsibility veered between the individual householder and the community, a housing compound of middle class residents, of which they were part. In Hong Kong, the Climateers project contained a more explicit focus on community as an entity that could be mobilised in order to effect behavioural change for energy conservation and to create a constituency for whom acting locally on climate change mattered and required a political response. The project focused on a group of Climateers Ambassadors, those who signed up to commitments to reduce their personal carbon footprint through the WWF-HK Climateers webpage, and providing them with training on the impacts and implications of climate change through seminars, interactive learning and visits to wetland and coral reef wildlife reserves. Climateers Ambassadors, in return, pledge to sign up ‘pen friends’ to the scheme, and to make their own personal reductions. The programme is supported by mobile apps, celebrity pledges, information and advice, as well as the training and field trips. With funding support from the HK Environmental Planning Department, two specific areas of Hong Kong were selected for further support as Climateers, and WWF developed bespoke training programmes and activities with local community groups (particularly of youth and of women) that focused on providing input for their chosen actions, including in one case the development of ‘low carbon cooking’ and support for a locally grown food co-operative. There is certainly plenty of focus on individual responsibility for carbon within the Climateers programme, but so too is the ‘community’ seen as a means through which these responsibilities are both shaped (by place, economy, social norms) and through which they must therefore be realised. To a degree, there is an element of recognition of the diverse forms of carbon responsibility that play out across Hong Kong’s enormously varied socio-economic landscape, and of both the social and technical inequalities that structure existing responsibilities for climate change and the ability to act in response to them.

In Brixton, London, the Low Carbon Zone has taken a different approach towards configuring ‘climate responsibilities’. Here, the population is economically deprived and unemployment is high and the initiatives within the Low Carbon Zone focused on behaviour change with an explicit sense of avoiding the climate change message, and instead, as one respondent put it: “the language used was very much what would resonate with the local community, the primary message was around saving energy and saving money, the message wasn’t around carbon reduction or anything like that.” In seeking to work with the grain of community interest, skills and enthusiasm – initiatives have included providing support for schemes started under the parallel ‘transition towns’ in Brixton, including food growing and draught-busting projects – there is no explicit discourse of where and for whom responsibilities for addressing climate change lie. This is, as with the Hong Kong example above, a result of implicit forms of justice as recognition, where the inequalities and experience of deprivation within the LCZ are regarded as structuring how carbon responsibility should be framed and practiced. However, in the absence of a specific discourse or acknowledgement of where responsibilities do lie, challenges arise in meeting the goals of carbon reduction with which the scheme is charged and with acknowledging diverse responsibilities within and beyond the boundaries of the LCZ; in effect, the lack of an explicit discourse may serve to dissipate any politics of carbon responsibility which would recognise who it is who should act.

*Making space for climate rights in the city: Monterrey and Philadelphia*
That responding to climate change may involve not only the attribution of responsibility, but also of rights (to avoid costs, to enjoy benefits) has been increasingly recognised at the international level, and particularly as issues of adaptation come to be considered in justice terms. Across the experiments we have examined, notions of rights to benefit from responses to climate change as well as rights to avoid the costs of action or the impacts of climate change itself were indeed present, albeit sometimes poorly articulated and frequently ignored amongst other claims to the city.

In Monterrey, we examined a low carbon housing project intended for low income residents of the city. The project, ViDA, was originally promoted by the Instituto de la Vivienda de Nuevo León (INFONAVIT), a decentralised service which represents in the state the national housing commission (CONAVI). Originally the major form of innovation was the introduction of a series of design principles in conventional social housing that would through the use of orientation, insulation, ventilation and so on, and without modifying the existing patterns and materials of construction of the industry (to guarantee the low cost of the housing units), reduce significantly the resource use of the house during its lifetime and improve considerably the life of its residents. In the original design, residents would receive a conventional mortgage from Infonavit and the additional costs were paid by the developers to whom the Instituto de la Vivienda provided the land at lower costs. When the mortgages were given to the residents INFONAVIT had just launched the “green mortgage”, and thus, the residents also received an additional quantity which paid for eco appliances (low-energy bulbs, a small solar panel for the street lights and water saving appliances for taps and the shower); an innovation that would later be taken up across Mexico. By seeking to demonstrate that the co-benefits from addressing climate change could be enjoyed not only by an elite, but by low income residents, ViDA established a new discourse that being ‘green’ could be married with providing access to housing and to mortgage finance. Here, responding to climate change, and the potential financial benefits that it might bring in terms both of access to capital and to long-term savings, is reconfigured as a matter of access and social justice. However, and despite the widespread uptake of the principle of the green mortgage in Mexico, the purchase of this discourse of the right to benefit from responding to climate change has been limited within the ViDA project. Responding to increased security concerns as the ‘drug wars’ came into suburban Monterrey, as well as the need to create spaces of economic productivity within the development, residents have barricaded properties, built on additional working/living spaces, and neglected open spaces, all of which have served to reduce the ‘passive’ benefits of the design in terms of cooling and consequent energy conservation. In the face of these other concerns, the sustainability characteristics of the development and the use of eco-technologies are hardly recognised, and the notion that there might be a right or benefit to be realised in relation to urban responses to climate change seemingly diminishes within the everyday realities of the development.

In Philadelphia, our focus was on a contest to promote energy efficiency measures in residential properties. Run in 2010, the ‘Retrofit Philly “Coolest Block” Contest’ gave residents in the city the opportunity to win a cool roof, air sealing and insulation upgrades by joining together and submitting an entry for their block. A total of 76 city blocks took part in the contest, which was publicised primarily through the informal political network of ‘block captains’ already present in the city. A public-private partnership between the Energy Coordinating Agency, City of Philadelphia and Dow Chemical Company, the contest’s framing of the climate change problem drew heavily on notions of rights. On the surface, it is clear that the contest drew heavily on the notion that residents have rights to benefit from climate change actions in the city, and that they have the right to be protected from adverse weather such as more intense summers and winters as a result of climate change. But at the same time, the involvement of the Dow Chemical Company raises questions about the rights of private interests to benefit from urban climate change responses, since it stands
to benefit substantially from the wider use of its products and technologies. This is not to pose a simplistic binary between public and private rights, since Dow was clearly a major driver of the contest, and the installation of energy efficiency retrofits such as those the contest was designed to promote would benefit a wide range of actors in the city in a variety of ways, including in reduced expenditure on cooling, more comfortable homes and workplaces, reductions in heat-related illness and mortality, (indirect) improvements in air quality due to reduced dependency on fossil fuels, and even a greater sense of community since the contest necessitated engagement with other residents living on one’s block. Yet despite the clear understanding amongst the contest’s organisers that structural conditions such as poverty (and, in Philadelphia, race) played a significant role in whether or not residents were able to lay claim to these benefits, the contest itself focussed on the individual benefits homeowners could gain. The question of those without capacity to participate in the contest and also parallel programs such as the EnergyWorks program which provides (nearly) zero-interest loans for energy efficiency upgrades was conceptualized as the City’s responsibility: “for the city the challenge is really investing significantly in repair and remediation of the existing housing stock to adapt it to climate change and that means a good roof, a roof that will drain and pour all the water off of it and a white roof.”

**Putting recognition into practice? Procedural justice, Hong Kong, Philadelphia and London**

At the international sphere, there is much discussion as to what a just process for governing climate change might entail. One of the most curious things about the debate on urban responses to climate change is that despite the often repeated municipal mantra of having a democratic mandate for addressing issues of climate change and sustainability, there has been very little consideration as to what it might mean to act accountably, legitimately and fairly at the urban scale (Aylett, 2010). In the face of the critique that climate change represents the ultimate ‘post-political’ arena (Swyngedouw 2010), engaging with the ways in which the urban governance of climate change frames and practices procedural justice is a pressing challenge.

Our cases suggest that new forms of responsibility for taking part in the governing of climate change are emerging in cities, particularly with respect to private sector and civil society actors. In Hong Kong, we see HSBC emerging as a critical sponsor of a range of behavioural change programmes, the mobilisation of certain parts of the business community, particularly in the property and energy sectors, and a range of NGOs (FoE, WWF, GreenSense), actively creating a discourse in which new responsibilities for the governing of climate change are seen to lie outwith the state. This is often a discourse of expertise, but also one of ability to act – recognising that it may be most appropriate for those with resources of various kinds to be the first to respond. This is a different discourse from that which ‘puts the last first’; in a way, it puts the ‘first first’, but when it comes to ensuring that those with responsibility for the problem and/or expertise to address it participate, this may be a necessary part of the response.

In Philadelphia, the ‘Coolest Block’ contest promoted the idea of individual responsibility for both adapting to climate change and mitigating the city’s contribution to climate change, by promoting the self-funded installation of building upgrades which would make homes more comfortable in the context of hotter summers and colder winters, but do so in a way that minimised the carbon intensity of this comfort. However, participation in the contest itself appeared targeted towards particular segments of the community, since it required a significant outlay of time and civic engagement and, along with participation and an ‘essay’, a minimum standard of structural integrity of the roof was essential in order to win the contest. Responsibility for governing climate change has in many respects been shifted to the individual, to the homeowner, facilitated by and supplemented by the municipal government. There is a clear recognition that poverty forms on of the key barriers to climate change adaptation and mitigation in the city, but overcoming this remains a real
challenge. As one of the conference organisers from the ECA observed one of the key advantages of installing a white roof is that it simultaneously addresses at least two problems: firstly, the poor thermal comfort and associated high levels of energy use resulting from the inefficiency of residential buildings; and secondly, chronic underinvestment in the building fabric leading to leaking roofs. As one of the conference organisers from the ECA put it: “we’ll also give people a white roof every time [a house is weatherized] and we’ll give them a new roof which for them is going to be a bonanza you know a really big deal, it’s going to be a game changer”. So the challenge of urban poverty to effective climate governance is being recognised in Philadelphia, despite the fact that they majority of responses in the city rely on an increasing responsibilization of the citizen and homeowner.

On the other hand, we see limited evidence that the right to participate in the governing of climate change is explicitly taken into account in the experiments that we have examined. One partial exception is the case of London, where we find that with regard to both the LCZ and Transition Town Brixton there is a premise of equal opportunities for all members of the community to become involved. Indeed, “part of the LCZ funding has been used to employ a community engagement officer whose role is to facilitate community projects and to network and connect people” and “there is a strong commitment to this being an “organic process”” conducted on the terms of the community: “I think a lot of the way the projects are run and delivered it is mainly about meeting the needs of the community... being adaptable to each individual’s needs... what would you like? Have you got an idea? How can we help you?” So that has been the approach” (Bulkeley & Fuller, 2012). Despite this commitment in principle, the practice of engaging with the multiple forms of community found in Brixton, together with the structural issues of inequality encountered, have meant that while there is acknowledgement of the principle of recognition, of the diverse factors that limit participation, these have been difficult to overcome: “There is a gap, it’s penetrating and reaching out to the hard-to-reach and we still haven’t been able to nail it.”

Furthermore, there is no evidence from our work that in any of the experiments were active processes of dissent or challenge encouraged. Rather, contestation arose in the form of small acts of everyday resistance (Scott 1990) and a lack of engagement in the upkeep, repair and maintenance required to further the rationalities and ambitions of particular experiments. This suggests that where experiments fail to take hold, it may be as much a matter of their political contestation as their technical achievements, and indeed that the two may be very much intertwined. Making climate justice in the city, then, is not merely a matter of principle, but of the ways in which issues of justice are woven into the continual accomplishment of climate response.

Conclusions

This paper has argued that in addition to the conventional international scale, it is productive and indeed necessary to examine how climate justice is being pursued at the urban scale. Furthermore, that whilst responsibilities and rights are two important frames through which we must understand the justice of climate governance, that more attention must be paid to the issue of recognition. This is particularly evident when we re-focus our analysis on the city, where the structural factors which drive and sustain inequality, disengagement & marginalisation are most visible.

The second part of the paper presented some brief discussions from our case studies in five cities, with the aim of beginning to show how rights, responsibilities and recognition are conceptualised at the urban scale. What is particularly evident from this preliminary analysis is the fact that each of these framings of justice is closely intertwined with the others. Yet framings of climate justice tend to focus much more on questions of rights and responsibilities than questions of recognition. Our
analysis suggests that this is inadequate. Having established an agenda for urban climate justice, we see a clear need for further engagement with the differential urban political ecologies of cities in the conceptualization of climate justice. Even from our initial analysis, it is clear that public-private binaries are insufficient as proxies for the justice or otherwise of urban climate governance, and whilst an attention to just procedures is clearly essential, it cannot be understood as a proxy for recognition.

In posing these questions, we open up the potentially much larger question about justice which to some extent forms the backdrop to this whole discussion; namely, how does climate change reconfigure existing challenges of social and environmental justice, and why should policymakers concerned with climate change pay particular attention to justice, particularly at the urban scale.
References


Scott, J. (1990) *Domination and the Arts of Resistance: The Hidden Transcript of Subordinate Groups*

