
Article:
Castán Broto, V. orcid.org/0000-0002-3175-9859, Westman, L. orcid.org/0000-0003-4599-4996 and Huang, P. orcid.org/0000-0002-7573-715X (2023) How hegemonic discourses of sustainability influence urban climate action. Buildings and Cities, 4 (1). pp. 973-989. ISSN 2632-6655

https://doi.org/10.5334/bc.390

BUILDINGS & CITIES

SPECIAL COLLECTION: URBAN ADAPTATION: DISRUPTING IMAGINARIES & PRACTICES

RESEARCH

How hegemonic discourses of sustainability influence urban climate action

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ubiquity press

ABSTRACT

Sustainability discourses influence the practices of urban climate action by establishing objectives and ways of doing things. Key concepts such as 'risk', 'resilience' and 'efficiency' have been central in the history of sustainability discourses, but their influence has changed over time. The use of these terms is analysed in policy narratives of urban climate action, exploring how they are deployed in policy and practice. A document database (n = 463) was analysed to show how the terms have evolved from their application in specific contexts to a more open interpretation in which different forms of environmental action are linked to development. Interviews with practitioners (n = 100) were analysed to reveal the influence of these narratives and how they organise action in urban environments. Three tensions emerge from the mobilisations of hegemonic discourses in practice: the contradiction between facilitating harmonised approaches across locations while at the same time scaling up action; the contradiction between implementing action in place and providing frameworks of action that can be evaluated at the global scale; and the challenge between identifying sources of leadership and accepting the increasing importance of multiple actors in local climate action. These tensions open opportunities to disrupt climate change adaptation discourses.

POLICY RELEVANCE

The history of the formation of environmental discourses has shaped climate policy at a fundamental level. These discourses contain embedded assumptions and reasoning that relate to their history and contextualisation rather than with absolute truths that inform them. Understanding the formation of these discourses may be necessary to identify the biases inherent to urban environmental practitioners' discourses and to understand their effectiveness and operation. A better understanding of these discourses supports policymakers in shaping responses to environmental challenges and finding new narratives to inform sustainable futures. Improved knowledge has been created by focusing on the tensions that emerge from policy documents and practitioner interviews.

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KEYWORDS:
cities; climate adaptation; climate policy; climate risk; efficiency; environmental discourses; professionals; resilience; sustainability; urban climate action

TO CITE THIS ARTICLE:
Castán Broto, V., Westman, L., & Huang, P. (2023). How hegemonic discourses of sustainability influence urban climate action. *Buildings and Cities*, 4(1), pp. 973–989. DOI: https://doi.org/10.5334/bc.390

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1. INTRODUCTION

The focus on action in urban environments increasingly points towards the tensions that articulate international climate policy and make them applicable in practice. For example, the growing interest in nature to deliver urban climate action has challenged the idea that adaptation and mitigation practices respond to strictly separate objectives (Kabisch *et al.* 2016; Pasimeni *et al.* 2019). Essential trade-offs exist between actions to promote urban sustainability (Sharifi 2020). These tensions generate contradictions that effectively challenge how the city is conceptualised and imagined and open possibilities to disrupt hegemonic thinking on urban adaptation.

The differentiation of multiple forms of intervention in the city responds to a long evolution of thought about the relationship between the city and its surroundings. Assumptions about the relationship between ecology and economy emphasise either resource efficiency or risk management depending on the context of action and the politics at hand. Urban environmental management simultaneously addresses many contrasting discourses, including those focused on environmental performance (to support the economy) or building resilience (to ensure safety). This paper compares the analysis of hegemonic discourses of sustainability in policy documents with how they are applied in practice in different forms of urban climate action.

A historical analysis of policy documents is presented to explain the formation of hegemonic discourses. The analysis suggests that while the 1990s and 2000s emphasised discourses of efficiency and the construction of the entrepreneurial city, safety and resilience have become increasingly prevalent since the mid-2000s. This opened a new articulation of environmental discourses to encompass broader concerns about individual, community and ecosystem wellbeing, as evidenced by recent reports from the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (*e.g.* Masson-Delmotte *et al.* 2022). Achieving the United Nations' (UN) Sustainable Development Goals (SDGs) is crucial to both advancing sustainability and reducing risks (Eckert *et al.* 2023). This represents a change in discourses of climate urbanism, incorporating a wide range of concerns about development, justice and equity in prescriptions for climate action (Bulkeley 2022).

This paper analyses the encounter of hegemonic discourses on urban climate action with the narratives of urban environmental professionals. Practitioners' attempts to adapt stylised narratives of environmental governance into action raise contradictions. The analysis highlights three tensions: (1) the contradiction between facilitating harmonised approaches across locations while scaling up action through the assemblage of multiple resources; (2) the contradiction between implementing action in place and providing frameworks of action that can be evaluated at the global scale; and (3) the challenge between identifying sources of leadership and accepting the increasing importance of multiple actors in local climate action. The paper concludes that while there are parallel shifts between the discourses explained in policy documents and those articulated by practitioners, the inherent contradictions of those discourses mean that practitioners work to adapt those discourses, opening disruptive moments in which discourses appear to change.

2. CONTRADICTIONS IN ADAPTATION DISCOURSES

The focus is on environmental discourses that inform urban climate action. The analysis of environmental discourses has a long pedigree in environmental research. In *The Politics of the Earth* (first published in 1997), Dryzek (2022) explained the political implications of the complex expressions of concern about the Earth. His analysis was a taxonomy of relatively homogeneous variants of discourse that informed environmental action. In contrast, Hajer's (1995) analysis of discourse emphasised its heterogeneity within the umbrella of what was known then as 'Ecological Modernization'. This discourse reflected a belief that rising concern with the Earth was ushering in a new style of environmental action whereby ecological concerns would be seamlessly integrated into standard economic and social policies. Narratives are not passive receptacles but active tools that change through interaction with the worlds they purport to represent, and

DOI: 10.5334/bc.390

thus they are constantly evolving (Hajer 2002). Discourses inspire innovative methodologies to analyse policy-in-the-making by focusing on 'the situational logics of "language-in-use"' (Hajer & Versteeg 2005: 175). Discourse analysis has thus served to develop analyses that emphasise the linguistic mediation of conceptualisations of the world (discourses), the political struggles of those conceptualisations and the material impacts of such discourses.

Michel Foucault has been a central reference in the literature on environmental policy discourses. In particular, Foucauldian analysis has allowed for a direct engagement with the productive function of discourses and how they are structured in statements that include anything from concepts to the arrangement of things (Feindt & Oels 2005). Those discourses produce power through the exchanges and assertions of knowledge in social interaction. Discourses in the Foucauldian reading enable both the articulation of a situation and the subjectification of those who engage in the discourse, *i.e.* their enrolment in the discourses they articulate (Feindt & Oels 2005; Oels 2005). Discourse is particularly salient, *e.g.* in constructing low-carbon subjects within the climate space and the structure of governability through articulating climate action in urban space (Bulkeley *et al.* 2014). Since those initial steps, discourse analysis in the environmental sciences has diversified, breaking through initial fault lines between Foucauldian and non-Foucauldian approaches, with the incorporation of a variety of approaches in different sociological traditions, from linguistic studies of speech acts to post-Marxist analyses of hegemony (Leipold *et al.* 2019). In every case, discourses relate to various political effects, from facilitating social mobilisation to shaping the forms of knowledge and prioritising some discourses over others. The constitution of 'hegemonies', in fact, requires the discursive articulation of different subject positions, but, at the same time, it does contain within itself multiple contradictions reflecting those different subject positions (Laclau & Mouffe 2014).

Discourses reveal something of the fundamental imaginaries that articulate social life and determine what forms of living are acceptable or not (Castoriadis 1987), discourses of efficient management, on the one hand, or safety and protection, on the other. Any attempts at radical change require somehow accessing those imaginaries to apprehend the multiple modernities people live through. Still, they appear out of reach even if they appear to shape public culture. These social imaginaries emerge as autonomous subjectivities embedded in people's habitus and exchanges (Gaonkar 2002). Statements can appear as a manifestation of the imaginations generated by such imaginaries. Statements refer to those units of discourse (ideas, concepts, arrangements, architectures) that contain not only an utterance but also a productive vocation of intervention in a given situation (Foucault 2005). Risk, resilience and efficiency appear as fundamental units of the imagination that can be articulated in specific statements. While diverse and nuanced definitions coexist, each evokes a different problem (uncertainty, endurance, wastefulness) and a different response (redundancy, cooperation, optimisation). Those statements are eventually arranged in semi-stable configurations that emerge as more or less coherent discourses.

As accepted in most of the literature on discourse analysis, contestation is one of the generative forces that shape discourses. Discourses are characterised by inherent tensions, often regarded as generating oppositional terms. The general approach to those oppositions is to attempt to resolve them by overcoming one of the sides of the contradiction. However, this overlooks that such contradictions are generative and may constitute a mechanism whereby discourses are transformed, and the imaginary is, for a moment, accessible. Reading this through a Hegelian lens, Castán Broto (2015) has called contradictions 'engines of change' because the opposition reveals the interconnection between different components at a meta-level of analysis. For example, in the history of sustainability, the contradiction between growth and conservation has hidden the broader extractive relations that shaped both.

In summary, our discourse analysis focuses on mobilising essential units of discourse or statements while emphasising the tensions they generate to reread contradictions as mechanisms for radical change.

DOI: 10.5334/bc.390

3. METHODS

This study examines to what extent practitioners articulate hegemonic discourses of sustainability in urban climate action (or their enrolment in those discourses, as explained by Feindt & Oels 2005) and, conversely, the extent to which they can disrupt those hegemonic discourses in practice. Specifically, contradictions that emerged from discourse and action encounters were searched for.

First, an analysis of discourses mapped ideas of efficiency, risk and resilience in a database of policy documents. Second, how existing narratives are mobilised through urban climate action is analysed in practitioners' and policymakers' accounts.

3.1 DISCURSIVE ANALYSIS OF POLICY DOCUMENTS

The analysis of a database of policy documents informs how terms are defined in discourses of international climate policy. First, a literature review helped identify critical organisations in this policy domain, including UN bodies, multilateral banks, municipal transnational networks and international non-governmental organisations (NGOs). The selection of organisations was further informed by participation at international climate policy events, such as the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (for a complete list of organisations included in the database, see Westman *et al.*, 2023: Methods Appendix A). Second, reports focusing on cities and climate change were collected from each organisation according to a tailored search strategy. The final database included 463 documents issued by 37 organisations, listed in an Excel database, and compiled in NVivo (for full details, see Westman *et al.*, 2023: Method Appendix B). The sample of documents was collected to track discourses over time, but the temporal delimitation (1946–2020) was based on document availability. While the range of documents available starts in the 1940s, the database comprises more documents from the 2000s. Documents published before 1990 were generally shorter and read in full.

The database analysis focused on identifying how narratives surrounding efficiency, resilience and risk have been articulated in influential policy reports, and how those concepts have been adjusted over time. These three concepts were selected to represent influential ideas in sustainability debates. While many other narratives have proliferated alongside these three (eco-, green, smart, circular, *etc.*), the terms were selected to capture critical development concerns at different times.

Sustainability is a discourse that has evolved, becoming embedded in institutions and governance (Barnes & Hoerber 2013). Such has been its influence that it has become understood as an empty signifier, reflecting the many ways contemporary societies fail to incorporate concerns about the future in forms of collective world-making (Brown 2016). Since the conception of sustainability as a policy discourse in the early 1990s, the future (encapsulated in the notion of future generations) appeared as the justification of the concept. Still, its popularity met concerns about a catching-all catchphrase that would have limited impact (Lélé 1991). In this context, there have been efforts to associate sustainability and sustainable development with action-oriented narratives, opening straightforward programmes of action. An initial concern with sustainable development to align economic development concerns with environmental preservation put efficiency at the core of sustainability discourses. Ecoefficiency discourses have encountered multiple forms of criticism for not being true to the original concerns of sustainable development (Amadi *et al.* 2014). They have, however, been revived in discourses of smart cities and carbon performance (Haarstad 2017). As contemporary societies became more aware of risks, their management became a central concern of sustainability, first through the increasing perception of environmental risks and later through the management of climate risks (Anderson & Anderson 2009). Scholars faced with utilitarian notions of sustainability have sought to reframe it alongside ideas of equity and justice (Grist 2008).

While analytically separated from sustainability, the notion of resilience provided a point of entry to understand how to incorporate wider concerns about socio-ecological transformations (Redman 2014). In particular, resilience has become a useful way to think about the future of urban environments (Elmqvist *et al.* 2019). For instance, the United Nations Disaster Risk Reduction (UNDRR) Make Cities Resilient Program contributed to the normalisation of the idea

DOI: 10.5334/bc.390

that local authorities act as champions of resilience. Similar actions can be linked to other major programmes, such as the Cities for Climate Protection programme, launched by ICLEI in 1993, or the 100 Resilient Cities programme, initiated by the Rockefeller Foundation in 2013.

This analysis was conducted to frame the evolution of hegemonic discourses and interrogate how they link to ideas on action. First, a word search was used to identify any references to the three terms across 443 documents in the policy database (the word search excluded 20 scanned documents published between 1946 and 1977, as NVivo could not identify text in these reports) (Table 1). Second, reviewing this material, the extent to which the terms were open to substantive discussion was analysed (*i.e.* defined, operationalised, discussed in depth). Third, the analysis tracked changes in discourse over time.

Table 1: Overview of references to risk, resilience and efficiency in policy documents

	NUMBER OF DOCUMENTS THAT MENTION THE CONCEPT	TOTAL NUMBER OF REFERENCES
Risk	309	23,073
Resilience	280	12,091
Efficiency	321	9,803

3.2 ARTICULATION OF DISCOURSES IN NARRATIVES OF ACTION AMONG PRACTITIONERS

Individuals were identified and invited to participate in interviews, departing from the same list of organisations produced for selecting policy documents. A snowball sampling strategy helped identify additional respondents. The final sample comprised 100 interviews (plus three pilot conversations) with respondents from 90 international organisations, local governments and private actors. The interviews were delivered mainly through video calls, with a couple of conversations completed face to face or through written responses. The interview questions revolved around each respondent's experience, work in different organisational capacities and critical projects related to urban climate policy. All interviews were recorded, transcribed and uploaded into NVivo for analysis.

The analysis focused on identifying how the concepts of efficiency, resilience and risk are related to ideas of action. A word search of the transcripts was conducted to identify all references throughout the material and critical hotspots of discussion around the topics (Table 2). Next, sections with a substantive engagement with these ideas were analysed in depth. Finally, the analysis tracked differences in narratives across organisations and over time to capture any emerging contradictions expressed in those discourses.

Table 2: Overview of references to risk, resilience and efficiency in practitioner narratives

	NUMBER OF TRANSCRIPTS THAT MENTION THE CONCEPT	TOTAL NUMBER OF REFERENCES
Efficiency	35	93
Risk	29	119
Resilience	38	321

3.3 DISCOURSES OF EFFICIENCY, RISK AND RESILIENCE IN URBAN CLIMATE ACTION

Efficiency and risk emerged as disconnected statements, eventually consolidating into contrasting discourses. Yet, they were both built on comparable assumptions (*e.g.* a focus on economic development, technology and infrastructure) and aligned with similar policy paradigms. When resilience began to form, in dialogue with discourses of risks, it reflected another set of ideas, especially capacity-building and multi-actor governance.

DOI: 10.5334/bc.390

3.3.1 Discourses on efficiency

As shown in Table 1, a large share of the documents in the database engaged with the concept of efficiency. Looking back to reports issued in the 1990s, the language is present in crucial sustainability debates. For instance, Agenda 21 (the Rio Declaration on Environment and Development, issued following the UN Conference on Environment & Development in 1992) contains 149 references to efficiency. Efficiency appears as an indicator of well-functioning economies. This reflects discourses on ecological modernisation, prevalent at the time, which sought to build paths to reduced consumption of resources through enhanced performance of markets. As noted in the opening chapters of the declaration:

> This partnership commits all States to a continuous and constructive dialogue, inspired by the need to achieve a more efficient and equitable world economy. [...] The following policies should be adopted by developing countries concerning commodities consistent with market efficiency [...].
>
> (UN 1992: 2.1, 2.1.3, 2.1.4)

A similar logic is reflected in reports issued in the following years. For example, the World Bank's *World Development Report* (1994) speaks of efficiency in infrastructure delivery to tackle poverty, economic performance and environmental degradation:

> More efficient, more accessible, and less costly infrastructure services are also, of course, essential to more effective poverty reduction [...] new ways of meeting public needs for services from infrastructure [...] are more efficient, more user responsive, more environment-friendly, and more resourceful [...].
>
> (World Bank 1994: iii, 1, 2)

As debates on sustainability grew more complex, the idea of delivering environmental protection solely through market improvements came into question. The focus on the efficiency of markets and pricing gradually gave way to an interest in optimising industries and technology. For instance, the European Commission's *European Sustainable Cities* (1996) report shows a concern with efficient resource use in multiple domains (*e.g.* transport, product performance, energy). Similarly, the World Bank's examination of climate-mitigation policy in the context of development in *Climate Change and the World Bank Group* concludes:

> Win–win policies in energy pricing and nonprice energy efficiency have the potential to reconcile national and global goals. They can help countries meet a good part of their incremental energy needs at low cost while freeing up funds for social protection and increasing resilience to international energy price shocks. [...] End-user energy efficiency has long been viewed as a win–win approach with great potential for reducing emissions.
>
> (World Bank 2009: xv, xvii)

In the past decade, efficiency became primarily associated with specific technological interventions, especially energy efficiency. A UN-Habitat report, *Cities and Climate Change* (2011), contains a wide range of references to products and services that need to be made efficient (efficiency of production and consumption, efficient vehicles and engines, efficient public transport, efficient waste collection), as well as many mentions of energy (energy-efficient appliances, energy efficiency in buildings, energy-efficiency technology, *etc.*). The Organisation for Economic Co-operation and Development's (OECD) *Competitive Cities and Climate Change* (2009) reflects a broader interest in efficient technology and a more specific concern with energy efficiency:

> Technology also matters: urban areas relying on inefficient or wasteful energy sources contribute more GHG emissions than those that consume the same amount from more efficient sources. [...] Some urban climate policies should be considered no-regret policies as they can provide additional co-benefits. These include public health improvements, cost savings and increased efficiency, energy security and infrastructure improvements, and improved urban quality of life. [...] Policies to reduce GHG emissions

> through increasing energy efficiency can result in significant reductions in energy costs, and the energy savings achieved can compensate for the initial investment costs in as little as a few years.
>
> (Kamal-Chaoui & Robert 2009: 10, 11)

The most significant number of references concentrate on the reports of a few organisations engaging with relatively technical aspects of energy efficiency and making a case for specific solutions, including the International Energy Agency (IEA) (908 references in IEA 2016) and United Nations Environment Programme (UNEP) (respectively, 304 and 283 references in UNEP 2015; and UNEP/IEA 2018):

> ETP 2016 highlights how national energy policymakers can work with local governments to make cities more efficient, secure and healthy places to live while also contributing to national and global sustainability objectives. [...] For example, sustainable mobility solutions can increase access to services while reducing congestion and increasing productivity. Efficient building technologies can reduce energy investment needs while increasing comfort for residents.
>
> (IEA 2016: 6)

> District energy represents a significant opportunity for cities to move towards climate-resilient, resource-efficient and low-carbon pathways. [...] The development of modern (*i.e.* energy-efficient and climate-resilient) and affordable district energy systems in cities is one of the least-cost and most efficient solutions for reducing greenhouse gas emissions and primary energy demand.
>
> (UNEP 2015: 11)

3.3.2 Discourses on risk and resilience

Risk and resilience are two distinct but interrelated discourses. References to risk are ubiquitous in these documents (Table 1), and, as with efficiency, narratives on risk were already present in the 1990s. In Agenda 21, risk was not as central as economic efficiency, although the document contains a significant number of references (166). However, concerns are diverse, ranging from risks of maternal and child mortality, environmental pollution and hazards, endemic disease, child exploitation, pesticides and chemicals, and disaster management (UN 1992). Rather than constituting an organising discourse, ideas on risk are linked with environmental protection and development in highly variegated ways.

The following years witnessed a growing focus on risks and a consolidation of discourses on environmental and economic threats. For instance, a World Resources Institute report on the urban environment identifies several risks linked with urban dwelling:

> [T]he urban poor bear the greatest burden of urban environmental risks because of the situations in which they are forced to live—whether in the sprawling squatter settlements of developing world cities or in the blighted urban centres of Europe and North America. [...] Unable to afford even the lowest-cost housing, many people with low incomes build their own makeshift shelters out of cardboard, plywood, or scraps of metal. Overcrowding increases the risks of airborne infections and accidents. Many poor neighbourhoods are often unserved by water and sanitation facilities and garbage collection. [...] Proximity to industrial facilities, often the result of the desire of the poor to live near places of employment, poses another set of risks.
>
> (World Resources Institute 1997: 14–15)

These two perspectives came together in the early 2000s in the challenge of climate change, representing the combination of environmental and economic shocks. A landmark report published by the World Bank, *Building Safer Cities* (2003) (which contains 1669 references to risk), captures this shift in the conversation through its explicit focus on disasters in urban environments, with climate change representing the central challenge:

> Vulnerability to disaster impacts is one of the most underestimated issues in urban development. By 2050, the world population is expected to grow by 3 billion people. Most of this growth will occur in developing countries—and within these countries, in cities and towns—more than doubling urban populations. Large numbers of people will be concentrated in megacities and on fragile lands, making reduction of vulnerability to disasters in metropolitan areas a critical challenge facing development.
>
> (Kreimer *et al.* 2003: editors' note)

Similarly, a UNDP report identified climate change as the primary global development challenge of the time, linked directly with risk in urban environments and poverty:

> whatever the future risks facing cities in the rich world today, the real climate change vulnerabilities linked to storms and floods are to be found in rural communities in the great river deltas of the Ganges, the Mekong and the Nile, and in sprawling urban slums across the developing world. [...] Concentrated in fragile ecological areas, drought-prone arid lands, flood-prone coastal areas, and precarious urban slums, the poor are highly exposed to climate change risks—and they lack the resources to manage those risks.
>
> (UNDP 2007: 3, 24)

In the 2010s, the discourse on risk continued in parallel with resilience. For example, the United Nations Disaster Risk Reduction (UNDRR, formerly the United Nations International Strategy for Disaster Reduction—UNISDR), an organisation that has always worked on disaster risk, engages actively in resilience. Through programmes such as the Making Cities Resilient Campaign, the organisation explicitly brought this agenda to cities, connecting disaster risk reduction directly with climate adaptation. UNDRR viewed risk reduction as connected with climate action in cities, as well as with programmes for capacity-building:

> The question of resilience in the context of urban growth recognises that disaster risk reduction is not limited to preparedness and response but is a key determinant for sustainable development. How cities grow—the strategic planning and design of spatial elements and their impact on the natural and built environments, including the most vulnerable in urban planning—all dictate a city's capacity to absorb and recover from disasters, including those driven by an extreme climate. [...] Building resilience to disasters requires the national political will and intervention of active, competent local governments. They must be supported at the level through strong policies and sustained, sufficient financial commitments.
>
> (UNISDR 2012: 4)

The growing popularity of resilience means that the discourse is mobilised beyond actors traditionally engaged in disaster risk management. For example, the municipal networks United Cities and Local Governments (UCLG) and ICLEI promote resilience-building in cities whilst supporting a capacity-building approach such as that advanced by UNDRR:

> Disaster risk and resilience are complex, systemic, and dynamic, just like the urban areas and communities that are exposed to it. This complexity requires local and regional governments to understand what constitutes and shapes disaster risk and to provide solutions that will not only reduce it but also build resilience to ensure equitable and sustainable development in their communities. [...] Local and regional governments (LRGs) need, among others, enhanced capacity [...].
>
> (UCLG 2020: 5)

> Building resilience requires identifying and assessing hazard risks, reducing vulnerability and exposure, and, lastly, increasing resistance, adaptive capacity, and emergency preparedness. [...] The holistic meaning of resilience, its cross-cutting application and forward-looking approach has driven ICLEI to include Resilient Development among its five sustainability pathways.
>
> (ICLEI 2019: 5)

4. LINKS BETWEEN DISCOURSES AND ACTION IN PRACTITIONERS' NARRATIVES

Over time, there is synchronicity between discourses in policy documents and practitioners' narratives. A dynamic interaction between the two is perceptible in the move away from economic efficiency and consolidation around energy efficiency, as well as the mobilisation around broader notions of sustainability and later resilience as a form of capacity-building.

4.1 UNDERSTANDING CHANGING DEFINITIONS IN URBAN CLIMATE ACTION

According to interviewees' biographical accounts, practitioners' discourses have increasingly moved away from efficiency in the last decade. The discourse around sustainability emerged out of disquiet with the conflict between achieving economic development goals and environmental protection goals because it was inherently assumed that industrial development required polluting the environment. This was conciliated through discourses of environmental efficiency that emphasised the optimal management of environmental resources. In the context of climate change, this is increasingly less of a concern. Mitigation is understood as, more broadly, a political question of moving away from fossil fuels. Discourses of efficiency have been displaced from the core of climate action, though they are still present in debates on industrial and technological optimisation.

The efficiency discourse remains embedded In some action areas, especially energy efficiency and refurbishment. Energy efficiency, despite its contradictions, is considered one of 'the greatest success stories right now' (Local Government, I.41). Energy efficiency continues to inform discourses of climate action, whether because of the benefits of efficiency-oriented understandings of sustainability in terms of resource allocation or because it plays a crucial role in managing risks. For example, a representative of a municipal network explains that a municipal department that incorporates risk thinking can make efficiency gains because an adequate risk assessment 'not only saves their department time but also saves their department a lot of money in terms of allocating resources unnecessarily' (municipal network, I.81). Several local governments also emphasise that risk management is not only cost-efficient but also may indeed reduce costs in some sectors (*e.g.* Local Government Coordinator, I.83).

Most interviewees agree that in the mid-2000s there was a shift in thinking around climate governance, also changing climate action objectives. Individuals working in local governments, NGOs and international organisations describe this shift as a change of thinking, as the notion of sustainability became broader to encompass a wide range of human concerns. The parallel development of environmental justice debates generated alternatives to the managerial approaches to sustainability, which depoliticised sustainability-related conflicts. One of the visible impacts of social movements on sustainability discourses is the alignment of sustainability objectives with rights-based approaches. At the local level, this meant the inclusion of additional debates on poverty and inequality into sustainability challenges. For example, a member of a local government in Northern Europe explains:

> this kind of like high-end new development in the Harbor with a hundred per cent renewable energy and then sustainability retrofit in an area with socioeconomic problems became a nice kind of like holistic package to show that sustainability isn't just about rich people and sustainability. Also, it isn't just about poor people. Sustainability is about quality of life and all that kind of things [...] it was part of creating a new narrative [...].
>
> (local government, I.39)

This trend has recently led to calls for integrating mitigation and adaptation concerns in ways that bring climate change to the core of urban governance. Risk and resilience have become the means to incorporate sustainability in local climate action, with an increasing prioritisation of adaptation over mitigation. This has occurred as climate change has raised to a more prominent profile in sustainable development discourse:

> We worked on renewables and cities, and we worked on more energy-efficient technologies and systems and clean transportation [...], but the climate argument, really, wasn't a strong narrative. [...] By the time I left the team two and a half years later, and even actually when I was a year further into it in the global team, it was unbelievable the transition that had occurred. And that was because there had been a major push to mainstream climate into the institution.
>
> (multilateral development bank, I.61)

For example, at the local level, integrated planning was developed to respond to the uncertainties inherent in sustainability planning. As the following quotation exemplifies, integrated planning expanded action domains, linking resource optimisation with disaster risk reduction and social protection.

> since about 2012, there has been an attempt to incorporate climate information, climate change, or even disaster-related issues in planning. Planning for cities, planning for communities. So [...] in 2012, we started the development of a disaster risk reduction strategy. We then moved on to developing a slum upgrading strategy [...] a comprehensive urban development plan [...] focused on water, like freezing water supply and improving the water quality for the city, reducing floods within the city as well as improving transportation and mobility within the city.
>
> (municipal official, I.69)

Mainstreaming climate change has happened with the expansion of sustainability and resilience thinking to incorporate social issues and gradually shifting towards an emphasis on social protection and managing risks at the local level. In urban contexts, climate action, risk reduction and resilience are generally linked to development and health (of people, communities, ecosystems), and it is usually accepted that measures to improve the infrastructure and reduce overall vulnerability are measures to reduce environmental impacts. International discourses of urban climate action have increasingly established explicit links between climate action and development:

> So they need to start looking at building back better, trying to reduce the disaster risks. And so cities are realising that, but at the same time, there are different levels of cities and local governments, and some are challenged with very basic needs [...] if they invest in good education or better infrastructure, better health systems, that for us is reducing the underlying risk factors. [...] Because everything, whether we talk about climate change, we talk about disaster risk reduction, or we talk about sustainable development, these are all development issues and a good development should be able to address all these issues.
>
> (intergovernmental organisation, I.26)

Such an alignment between climate change action and development is expressed by various organisations, including international organisations such as UNDRR and the World Health Organization (WHO), City Networks (sometimes also aligning with competitiveness goals) and local governments.

The other way urban climate action, especially resilience, is conceptualised is as building capacity. A long history of technocratic approaches to risk reduction that continue dominating thinking on risk reduction emphasises building capacities without recognising existing ones. These are at odds with forms of integrated planning that look at the demands emerging from the context. Definitions of capacity are found in a spectrum from technocratic approaches to understanding risk and resilience to institutional approaches focused on building networks:

> accelerating this capacity within the cities can then accelerate things such as climate action or other kinds of actions [...] others were in the same space, but they could not operationalise it [...] it was more like a concept rather than a specific process. We created this specific process [by building capacity].
>
> (municipal network, I.73)

> we conducted several capacity building programs, where we had city officials, municipal officers, engineers and policymakers [...] when we designed our capacity building program, we had it in two sets where one day was dedicated exclusively to policymakers and decision-makers, where it was mostly sensitising them and orienting them on what resilience meant and how it is critical to keep climate change in mind when coming out with policy decisions and policy regulations. Then, the second part of the capacity building program was designed exclusively for people who are working on the ground, the municipal level officials and engineers, where the program was a little more detailed and more technical and where we had actually sensitised them on what are the different measures they could actually utilise.
>
> (academic/municipal network, I.60)

The focus on capacity is significant because of the attempts to connect definitions of sustainability with efforts at self-regulation, whether this is regulation of individual subjects or the change of culture that would enable the subjectification of institutions, showing how the articulation of environmental discourses seek to construct societies:

> they definitely created a culture around resilience. So, they created a buzzword. Resilience made the buzzword, especially for the cities participating in the initiative; they got resilience offices they got workshops. They had the funding to do activities, to liaise with diverse organisations, and with private sector partners [...] because social acceptance has to do with, like, how you can get people engaged.
>
> (municipal network, I.36)

4.2 EMERGING CONTRADICTIONS WITHIN URBAN CLIMATE ACTION

The second part of the analysis focuses on the tensions articulating those discourses. The first contradiction emerges from the difficulties of harmonising action to facilitate its reproduction. 'Harmonisation' is taken to mean attempts at finding coherent and transferable narratives that can be contextualised in specific locations, *e.g.* through upscaling. The need to ensure effectiveness in context means that actions cannot be reduced to transferable models or integrated into frameworks of comparison that enable measuring climate change. Global stocktaking, for example, is perceived as needing additive measures, but the most significant impacts of localised action do not lend themselves to measurement. Scaling up may lead to simplification and deviations. This contradiction is often sorted by extending the implementation network so that action comprises multiple layers/levels of action. Ideas such as a 'global community action' further aim to move beyond this contradiction.

> how do you scale up? [... First,] approaching the national governments and making them understand. Okay, fine, you've been doing some national-level work on reducing disaster risk, but you also have to support the local governments, and you have to make them understand. And you have to make the tool available for them in the local context, and you have to have capacity development programs and so on.
>
> (intergovernmental organisation, I.26)

Often, this contradiction is expressed concerning the need to create a global community of action, whereby removal from the context of action enables its harmonisation and detachment, as described in different forms of legacy:

> different types of tools and processes of methods [...] developed throughout the years that we see other organisations use and so on, the resilience strategies. [...] The legacy is very big and very broad. And for us in this new phase [... we work to identify] what is the value of having this global community together.
>
> (municipal network, I.73)

However, this need for harmonisation and global measurement emerges from an unrealistic need for computation across contexts and locales. When local action is not connected to international policy through well-specified frameworks, it becomes overlooked, ignored or detached.

The second contradiction emerges from the need to act in place, within the local scale of action, while distributing responsibilities at different levels of governance. The focus on the local displaces responsibility to local governments, which are seen as being at the centre of action. Still, such action is only imagined within externally imposed frameworks that overlook locally generated alternatives. International organisations argue that they let cities 'decide what is best for them' as if cities themselves were rational actors that can operate within frameworks of success—invariably imposed. This displacement of responsibility underscores the lack of capacity in cities, which chiefly shapes the development of programmes to advance resilience:

> this was an initiative that developed some tools and methodologies to help cities assess and support planning for climate change. [...] City A would request from our country office support on climate change planning or integrating climate change into their planning process. [...] We had more than 50 cities in 25 countries, mainly focused on climate change planning and different things. You know, it's not always doing the standard plan. It was sometimes some very concrete things.
>
> (intergovernmental organisation, I.63)

Cities face various challenges to which they need to respond in real time, but with different timescales. Moreover, cities' actions depend on coordinating multiple frames for action. While frameworks' impact on the ground is frequently questioned, fresh proposals for the development of further frameworks are also frequent:

> having a framework and doing work on the ground are two different things. [...] We've had programs on the ground, and we're fairly positioned in some spaces in some countries, particularly where we have good local partners. [...] And we've developed a fairly elaborate evaluation model that we've used over the past four years to sort of track the progress and collect data on.
>
> (international charitable organisation, I.34)

This is also a means to move away from project work, trying to develop integrated responses that last in time, as per the definitions of risk and resilience explained above. However, this discourse assumes that risk modelling is relatively straightforward and provides feasible responses about building resilience into the future without a concern for the complex uncertainties that shape modelled phenomena and the model itself.

> What if the city does not have enough capacity to understand risk information and also convert that risk information into applicable solutions? Most of the risk modelling is highly scientific. So, you need to look at risk model outputs a bit more in the sense that it gives an operative manual to the local government. So, in the absence of understanding and having risk information, which also includes future scenarios, it's not possible for a city to actually run any sort of tool that looks into those dimensions.
>
> (intergovernmental organisation, I.43)

Thus, risk and resilience are often reduced to the problem of accessing adequate forms of knowledge to deliver long-term solutions. The challenge is not the uncertainty inherent to knowledge production methods but the lack of capacity at the local level to deploy technical skills. The mantra of capacity-building holds firmly across the community of urban climate professionals, who attempt to mobilise these frameworks to overcome the challenges presented by specific contexts of action. However, the challenges persist. Often, these frameworks are presented as simply impositions of external priorities, particularly for those working at the local level, as shown in this example of a UNDP-led project in which:

> the money was spent on the development of a disaster risk reduction strategy when there were other priorities that we ignored [...] it's about who's bringing in the money, what they are focusing on, and does the city sometimes realign its focus, ignoring what's in its own strategy in order to be able to build up or even respond to some of the things that they need to implement.
>
> (municipal official, I.69)

These two tensions—the need to harmonise urban climate action and the need to tie it with the distribution of responsibilities at the local level—overlap, but they point to distinct contradictions. On the one hand, there is a process of discourse construction (harmonisation), and, on the other, a question of responsibility performance. Many interviews provide evidence that the context tends to overrule idealised narratives of action and context-situated challenges. Multiple examples across the interviews, such as the differentiation of Indian cities by combining physical geography and political interests (academic/municipal network, I. 60), demonstrate that definitions of climate action become locally embedded to address the stubborn realities of implementation.

The third contradiction emerges from the perceived need to provide leadership and have an actor playing that role, assembling resources and networks, while simultaneously involving multiple actors in multiscale action. Most interviewees identify multiple players that must be enrolled in the city to build resilience: communities, multi-actor planning and competing interests are commonly referred to in the interviews, but the question of leadership refers to the tools that enable maintaining action moving forward. Multi-form or dynamic leadership are euphemisms that hide the realities of action in highly constrained, urgent contexts. Moreover, leadership is conferred to local governments and, occasionally, businesses. Governance conditions rarely offer spaces for alternative leadership.

Leadership's temporal and dynamic nature can be overcome through the institutionalisation of urban climate action, *i.e.* that a given programme will continue in an organisation even when those who started are not in charge because of political cycles or life changes. Institutionalisation, however, is always incomplete and open for revision. Leadership, however, emerges at the level of the intermediary who can facilitate the circulation of ideas across contexts, among authors and within and beyond specific organisations.

5. HEGEMONIC DISCOURSE AND DISRUPTION

Decades of debate on sustainability show that some ideas have been persistent across contexts and time. Delivering efficient outcomes (economic and environmental) has occupied decision-makers since at least the 1990s, and continues to do so, although in somewhat different forms. The need to protect citizens from risk is now more urgent than ever and associated with an ever-growing policy vocabulary: future-proofing, ecological security, emergency and crisis. Such organising principles, consistent across groups and geographies, point toward the forms of influence associated with hegemonic discourses.

Pervasive narratives coexist with shifts in discursive configurations that alter the meaning of core concepts. For example, while efficiency remains a priority among decision-makers, the interest in market-driven solutions has, in many instances, been replaced by a focus on resource optimisation. On a superficial level, the terminology may appear similar, but underpinning values and action tools have fundamentally changed (*e.g.* from privatisation as a solution for everything to sector-based, technology-oriented interventions). Likewise, narratives on risk have been absorbed into broader debates on resilience, which bring a new set of problems and solutions into view (*e.g.* from managerial approaches to managing threats to wider notions of vulnerability reduction through social protection and participation). By the 2010s, the alignment of urban climate action and development was precise and formalised in the SDGs. Hegemonic discourses are constantly developing, persisting only through their re-assemblage.

The analysis provides clues into the dynamics of such reconfigurations. One mechanism is based on the institutionalisation of new practices by establishing new alliances, organisations and programmes. Another source of re-assemblage is the impulse to respond to ongoing practical

challenges, transforming how professionals think about climate change and urban sustainability. Professionals and policymakers are enrolled into dominant policy discourses (Feindt & Oels 2005). However, when examining how discourses are translated into action narratives of urban climate professionals, concepts such as efficiency, resilience and risk are used flexibly to embed them into different contexts and ideals of action. These forms of articulation generate tensions that, rather than being resolved, accommodate contradictory aspirations. The perceived need for harmonisation of discourses coexists with their appropriation in specific contexts. The construction of responsibility at the local level coexists with the diffusion of responsibilities at different scales. Attributing leadership functions to some institutions coexists with recognising multiple actors' roles in urban climate governance.

These dynamics open a reflection on what is radical and what is incremental—what is disruptive and what is conforming in the context of discursive practice. First, the proliferation of an assortment of political elements was observed within the hegemonic discourse. As argued in theoretical proposals on hegemonic discourse discussed above (Laclau & Mouffe 2014), these always contain diverse political positions and struggles, even though organised beneath a totalising order. Sustainability is such a vast discourse that it enables a broad range of practices. Global articulations are abstract, leaving significant room for manoeuvre at the local level. In practice, this means that practitioners mobilise forms of action that may be considered radical (*e.g.* empowering marginalised groups, tackling structural oppression), even though these practices may not directly challenge discursive structures at a global level. Second, the radical may incrementally change the hegemonic. It is possible that through encounters with practice, discourses become refined and adapted to the conditions of action, enabling their reconfiguration. Resolving contradictions involves experimentation, learning and shifts in ways of doing things, which may feed back into the form of re-assemblage that alters discursive formations. This suggests that what is radical may not be identified until a discourse has changed in incremental ways. Such a perspective indicates that disruptive interventions occur constantly, though perhaps invisible in their unfolding. Discursive transformations are not necessarily generated through grand visions and schemes but through the daily, embodied discomfort of practitioners who seek to make sense of global narratives and deliver concrete benefits in people's lives.

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VCB conceived the paper, analysed data, drafted the first version of the paper and edited several versions of it. VCB also leads the project that funded the research work presented in this paper. LW collected data, analysed data, wrote sections of the paper and edited different versions of it. PH revised the analysis and the argument, wrote sections of the paper, and edited different versions of it.

COMPETING INTERESTS

The authors declare they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DATA AVAILABILITY

The document database is available on request. The interview transcripts will be deposited in the UK Data Repository upon the end of the project in February 2025. In the meantime, they are available on request.

FUNDING

The project leading to this publication (LOACT) received funding from the European Research Council (ERC) under the European Union's Horizon 2020 Research and Innovation programme (grant agreement number 804051).

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TO CITE THIS ARTICLE:
Castán Broto, V., Westman, L., & Huang, P. (2023). How hegemonic discourses of sustainability influence urban climate action. *Buildings and Cities*, 4(1), pp. 973–989. DOI: https://doi.org/10.5334/bc.390

Submitted: 02 October 2023
Accepted: 16 November 2023
Published: 15 December 2023

Buildings and Cities is a peer-reviewed open access journal published by Ubiquity Press.