

1 **Abstract:** This paper exposes missing interconnections between the urban, national and
2 international scales in the analysis of climate adaptation policy and territorial governance in
3 the United Kingdom (UK). Drawing upon the results of interviews with adaptation
4 stakeholders in seven UK city-regions, it examines: (i) the increasing discursive alignment of
5 the ‘urban’ and the ‘national’ in international climate adaptation policy and decision-making
6 processes; and (ii) the contradictions between urban and national climate policy discourses
7 across the UK devolved territories. The paper identifies and accounts for an emergent scalar
8 geopolitics of climate adaptation governance as urban climate actions and knowledges are
9 enrolled in the UK state’s efforts to respond to broader international climate governance and
10 policy imperatives. We call for further research on how adaptation knowledge is
11 geopolitically mobilized at different scales of climate governance.

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13 **Key words:** Urban climate governance; state devolution; geopolitics; scale; adaptation;
14 United Kingdom.

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26 **I INTRODUCTION**

27 The theoretical and empirical complications of unravelling territory, politics and governance
28 in trying to understand the shortfalls of modern liberal statecraft and geopolitics have been
29 well-documented in the literature on territory, governance and politics (Dodds, 2018; Woon,
30 2019). Such geopolitics – enshrined in neoliberal territorial bordering practices of state
31 sovereignty – have important repercussions for environmental governance futures especially
32 at the national and urban scales. Research has also revealed the (dystopian) post-peak oil
33 socio-political imaginaries we could expect from environmental degradation caused by
34 climate change (Harmer, 2018). Anthropogenic actions of political and environmental
35 instability have resulted in (geo)political institutions and mechanisms of the state having to
36 anticipate – but moreover cope and react with – non-linearity and non-stationarity because of
37 rapid ecological changes (Dalby, 2019) caused by ‘carboniferous capitalism’ (Dalby, 2013b).
38 Hence, no longer can our physical *and* political environments be seen and studied as mutually
39 exclusive fixed spatial entities; likewise socio-spatial relations, such as economy-
40 environment relations, are not just sites of experimental practice, but also objects and means
41 of scalar and territorial governance (Jessop, 2016). However, little empirical work has been
42 conducted on how climate adaptation governance in its broadest sense (e.g. adaptation
43 science/knowledge) fits within the wider scalar politics and governance of climate change
44 operating within and across state territories. This paper aims to bridge this gap in knowledge
45 of climate governance and geopolitics.

46

47 Hitherto the geopolitics of climate governance has been principally framed by hegemonic
48 discourses of the free market and global capitalism, where climate policy is shaped by
49 international free markets and inter-state competition (Kahn, 2013). Nonetheless, there are
50 increasing signs that protectionist trade policies are on the rise (e.g. President Donald

51 Trump's 'Making America Great Again' and the United Kingdom leaving the European
52 Union or 'Brexit'). Such politics are accompanied by geopolitical discourses signalling, in
53 effect, a hardening of borders, which often translate into weak interpretations of sustainability
54 and corresponding discourses of carbon control and mitigation at the urban scale as cities
55 increasingly take on the initiative of climate governance, thereby colonizing the policy space
56 vacated by the nation state (Jonas et al., 2011; Johnson, 2018a). Accordingly, many
57 commentators now position cities as leaders on climate adaptation (e.g. through experimental
58 governance systems) and national adaptation policy as a response to wider geopolitical
59 pressures rather than domestic urban politics (Bulkeley, 2013; Bulkeley and Betsill, 2005;
60 Bulkeley and Castán Broto, 2013; Bulkeley et al., 2014; Keohane and Victor, 2016).
61 However, treating the urban as a discrete scale of climate governance operating
62 independently from the national can be just as problematic as seeing the international scale as
63 determining what cities do to tackle climate change.

64
65 In this paper, we focus on exposing some missing interconnections between the urban,
66 national and international scales in the analysis of climate adaptation policy and territorial
67 governance in the United Kingdom (UK). Drawing upon the results of interviews with
68 adaptation stakeholders in seven UK city-regions, we examine: (i) the increasing discursive
69 alignment of the 'urban' and the 'national' in international climate adaptation policy and
70 decision-making processes; and (ii) the contradictions between urban and national climate
71 policy discourses across the UK devolved territories. In doing so, the paper identifies and
72 accounts for an emergent scalar geopolitics of climate governance as urban climate actions
73 and knowledges are enrolled in the UK state's efforts to respond to international climate
74 adaptation governance and policy.

75

76 The remainder of the paper is structured as follows. Section II draws together the literature on
77 adaptation and the scalar politics of climate governance in order to (re)establish connections
78 between urban, national and international scales of analysis. Section III justifies the choice of
79 case study city-regions across the different national territories of the UK and the methods
80 utilized for the research. Section IV utilizes document analysis and interviews with UK
81 adaptation stakeholders to empirically illustrate missing connections between scales, namely
82 urban, national and international climate policy and governance. We also highlight how
83 national and urban spaces across the UK are colonized by conflicting climate adaptation
84 policy and governance discourses. In doing so, we animate a broader scalar geopolitics in
85 which urban forms of climate adaptation governance in the UK are differently mobilized by
86 the national state at various scales of climate governance.

87

88 **II CITIES, ADAPTATION AND THE SCALAR GEOPOLITICS OF CLIMATE** 89 **GOVERNANCE**

90 This section critical examines how cities (and city-regions) are being positioned as climate
91 policy leaders often at the expense of knowledge of the nation state. It then addresses the
92 scalar politics of climate governance, highlighting connections and tension between urban
93 climate actions and processes of state internationalisation and devolution.

94

95 ***2.1 Cities and the governance of climate adaptation***

96 The governance of climate adaptation¹ is arguably far more difficult than that of mitigation to
97 implement at national and urban scales given its complex human-natural dimension
98 (Kythreotis et al., 2020). Adaptation knowledge is predicated upon risk-based analyses of

¹ Defined as “The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects” (IPCC, 2014b, 118)

99 geographically uneven social, cultural, economic and political factors as influenced by
100 uncertain climate impacts (O'Brien and Leichenko, 2000). Furthermore, adaptation is
101 attributed both public good and social justice dimensions that make it a more nebulous,
102 socially constructed phenomenon (Adger et al., 2009; Benzie, 2014; Bisaro and Hinkel, 2016;
103 Eakin et al., 2014). Given that different places are entrenched within different systems of
104 knowledge and power (politics, policy and territorial governance), different local adaptation
105 responses can subvert and alter existing institutionalized systems of policymaking beyond the
106 state, or even reify them so as to perpetuate existing climate vulnerabilities, ecological crises
107 and political-economic systems (e.g. neoliberalism) (Grove, 2014; O'Lear, 2016a, 2016b).
108 This has significant ramifications for how climate adaptation responses (vis-à-vis mitigation)
109 are governed across geographical space and the role of cities and city-regions in such
110 territorial governance processes.

111

112 Whereas cities are increasingly seen as leaders on climate adaptation (e.g. through
113 experimental governance systems), national governments continue to respond to international
114 competition rather than address growing demands from the urban citizenry for actions to
115 address climate change (Bulkeley, 2005; Bulkeley and Castán Broto, 2013; Keohane and
116 Victor, 2016). Such geopolitical pressures are reflected in transformations in urban
117 governance. For example, urban politicians and managers today engage in various forms of
118 'urban diplomacy'(Phelps and Miao, 2020), effectively enabling their host cities to extend
119 their influence across international borders and access global networks and flows of
120 information, resources, and policy knowledge, including knowledge about successful (and
121 failed) climate adaptation policies (Frantzeskaki, 2019). For example, almost 100 major cities
122 currently participate in the United Nations C40 network, which promotes a host of city-scale
123 actions designed to combat climate change (see <https://www.c40.org/cities>). In mobilizing

124 international climate policy networks, cities have seemingly become geopolitical actors in
125 their own right, circumventing the actions of apparently dysfunctional nation states (Barber,
126 2013; Johnson, 2018b).

127

128 Recent research has further highlighted the role of ‘experimental’ forms of urban climate
129 governance in shaping international climate policy (Bulkeley and Castán Broto, 2013; Hajer
130 and Versteeg, 2019; Hölscher et al., 2019; Kivimaa et al., 2017). From a policy
131 implementation perspective, urban experimentation may seem logical given that international
132 and national policy structures can be unwieldy in preparing for uncertain climate impacts.
133 However, there is the caveat that we cannot solely rely on the city ‘in silo’ to undo the
134 failings of national governments and global corporations in terms of their respective
135 contributions to anthropogenic climate change. Instead, we need to think extra-territorially
136 when reimagining the role that cities play in governing more just and inclusive climate
137 futures (Kythreotis, 2018; Wachsmuth, 2017), particularly in the context of how urban
138 climate decisions can often marginalize local civic voices (Leitner et al., 2018).

139

140 Some suggest that engendering ‘transformational’ adaptation as a form of adaptation
141 knowledge to improve local adaptive capacity can in fact be circumvented or even ‘hollowed
142 out’ by upscaling politics (Blythe et al., 2018). However, weakening of the democratic
143 accountability of governance stakeholders in urban adaptation decisions raises significant
144 broader questions about the efficacy of urban experimental governance as a transformational
145 force. This is important for territorial governance more generally because local adaptation
146 responses to climate change cannot just be solved at the local scale; they requires interaction
147 between scales for adequate political response to take place (Adger et al., 2005).

148 The international scale continues to be the main locus of climate policies designed to
149 influence how nation states and cities respond to climate policymaking (Bulkeley and Moser,
150 2007; Purdon, 2015). Nonetheless, exposure to climate risks and impacts has resulted in
151 national governments paying more policy attention to adaptation (Pielke Jr et al., 2007).
152 Adaptation policy, governance and practice is more complex to initiate across different
153 geographical locations within state territory because it needs to take account of placed-based
154 forms of knowledge assessment that are socio-politically constructed within a risk-based
155 framework (Adger, 2009; Adger et al., 2005; Bisaro and Hinkel, 2016; Huiteima et al., 2016).
156 What often results is a vertical ontology of climate policy response, with the international and
157 national scales respectively constructed as the ‘scale of structure’ (rules, regulations, etc.) and
158 the local as ‘scale of agency’ (public action, engagement, participation, etc.) (Jonas, 2006;
159 Marston et al., 2005). There is a need for adaptation responses to move away from the
160 traditional top-down technical instrumentalism and scalar fixity of international mitigation
161 policy, to more reflexive responses that are attuned to inter-scalar relations and build greater
162 resilience to, and even anticipate, uncertain impacts of climate change (Maor et al., 2017).
163 Recognising a scalar geopolitics of adaptation thus potentially opens up a more
164 comprehensive analysis of the relationship between different adaptation stakeholders vis-à-
165 vis how adaptation knowledge is politically mobilized by state and non-state governance
166 actors at different spatial scales (Kythreotis et al., 2020).

167

168 ***2.2. Climate governance and scale***

169 The concept of ‘scale framing’ (Kurtz, 2003) has emerged as a useful way of demonstrating
170 how different geographical scales are enrolled in urban and regional environmental
171 movements, governance and policy actions. Ontologically, such scales are neither pre-given
172 social structures nor directly equivalent to the corresponding state territorial structures (urban

173 governments, regions, provinces, etc.). Rather they can emerge through different modes of
174 social construction that are co-constitutive of producing (an environmental politics of) scale
175 that may or may not converge around formal state territories (Delaney and Leitner, 1997;
176 Kythreotis and Jonas, 2012). Kurtz (2003) further suggests that different scales of
177 environmental governance reflect different degrees of political regulation and cultural
178 legitimacy on the part of the state; they offer means either to include or exclude actors, often
179 contributing to environmental injustices rather than promoting progressive transformational
180 change.

181

182 Arguably, the most widely studied type of scalar relations in the climate governance literature
183 *are* top-down vertical relations within the state (Hare et al., 2010). Nonetheless, such ‘vertical
184 thinking’ tends to obscure knowledge of how climate governance works its way unevenly
185 through different levels in the scalar hierarchy of climate policymaking (Bulkeley, 2005;
186 Kythreotis et al., 2020). Alternatively, climate governance can be understood in terms of
187 horizontally networked processes stretching across different state territories. For instance,
188 international and national territorial agreements can be the result of the decisions of
189 interconnected ‘localities’ (Jessop et al., 2008; Rauken et al., 2014). However, in this case it
190 is also possible to think of climate governance in terms of polycentricism, in that governance
191 works simultaneously vertically and horizontally, collectively drawing in a variety of
192 networked state and non-state actors to tackle climate change (Ostrom, 2009, 2010; Jordan et
193 al., 2015). In some cases, polycentric governance can create opportunities for non-state actors
194 to work innovatively within central government policies, but at other times state interference
195 can block governance innovation (Gillard et al., 2017). The picture is further complicated by
196 processes of state devolution whereby powers and responsibilities shift between different

197 territories (national, regional and local) of the state, opening up further scope for stakeholders
198 to manoeuvre strategically at different scales (Kythreotis and Jonas, 2012).

199

200 Such differences in the ways in which scholars have approached inter- and intra-state
201 relations in climate governance suggest that greater attention needs to be paid to mapping and
202 explaining the diverse ways in which climate actions are geopolitically framed within and
203 between state territorial structures and scales. When the concept of scaling framing is applied
204 to these diverse political processes of climate governance, scale becomes not simply a fixed
205 level in a hierarchy of territories that cascade downwards from the international through the
206 national to the urban (Bulkeley, 2005). Nor is it solely a horizontal process of policy learning
207 and knowledge circulation across urban political boundaries. Instead, scales of climate
208 governance emerge from the politics, policies and governance enacted within and/or between
209 each scale around and within the state territorial hierarchy (Andonova et al., 2009).

210

211 Framing climate adaptation as a scalar geopolitics potentially offers a more productive way
212 of representing the complex processes of climate policymaking by highlighting how political
213 negotiation and contestation occurs around vertical and horizontal interconnected state
214 structures. Not only do state and non-state actors at the urban scale respond to climate policy
215 framed at the international scale but also climate actions at the urban scale can influence how
216 nation states respond to pressures to internationalise state territory and address domestic
217 challenges of devolution and territorial distribution (Jonas and Moisiso, 2018). The remainder
218 of this section considers the role of urban climate governance in processes of state
219 internationalisation and devolved territorial politics.

220

221

222 *2.3 Urban climate governance as scalar geopolitics*

223 The idea that cities function as international climate policy leaders evidently challenges
224 received assumptions that the Peace of Westphalia (1648) (and subsequent treaties between
225 rival imperial states) marked the construction of the modern world geopolitical order based
226 around nation states and that the late twentieth century marked a unidirectional trend towards
227 the decline of the nation state as the centrepiece of a ‘post-Westphalian’ international
228 political order (Kreuder-Sonnen and Zangl, 2015). It might be stretching the point to say that
229 today’s cities have become so detached from nation states that, when it comes to climate
230 adaptation and other forms of sustainability governance, urban managers behave as
231 autonomous geopolitical actors. Nonetheless, the growing internationalisation of urban
232 climate actions requires a fundamental rethinking about the role of cities and, increasingly,
233 city-regions in the emerging system of international governance. As Dierwechter (2020)
234 argues, the coming years could well mark the arrival of a ‘green geopolitics’ of urban
235 development in which cities, states, and global climate politics become closely intertwined.
236

237 This development, in turn, necessitates a more critical understanding of the role of cities in
238 climate geopolitics, whereby the international competitiveness and resilience of the modern
239 state is secured not so much by the control of its territory and borders as by its ability to
240 harness flows of capital and policy knowledge around and through its burgeoning city-
241 regional formations (Moisio, 2018). Indeed, the convergence of discourses of international
242 competitiveness and climate change could be contributing to a significant re-territorialisation
243 of the state around all sorts of newly emergent urban spatial formations (e.g. city-regions) and
244 their associated climate actions and policy discourses.

245

246 At the same time, climate adaptation policy opens up opportunities for devolved states to
247 pursue and promote ‘national’ projects of environmental governance and socio-territorial
248 redistribution within across their territories, some of which serve to manage growing societal
249 tensions and environmental injustices within national state borders. We have already noted
250 that urban politicians and managers engage in various forms of climate diplomacy, which
251 enable their host cities to reach out far beyond national borders and access global flows of
252 information, capital, resources, and policy knowledge (cf. Phelps and Miao, 2020). At the
253 same time, however, the ‘national’ is incorporated into the urban in different geographical
254 contexts and political projects, ranging from economic development, immigration control,
255 biosecurity and climate change (Coleman, 2009). Hence the ‘eco-restructuring’ of states and
256 cities – for example, the search for carbon neutral forms of urban development and territorial
257 governance (Rice, 2010) – is a co-constituted yet contested process of state spatial
258 transformation (While et al., 2010; Jonas et al., 2011; Moisiu et al., 2020).

259

260 The necessarily territorialised form of national-state orchestrated politics of climate
261 adaptation further manifests itself in projects and interventions that bring together
262 transnational actors, state officials and urban managers, who mobilise international climate
263 policy through local circuits of knowledge. For example, Evans (2011) illustrates how
264 adaptive experiments are embedded into urban governance whereby different state and non-
265 state actors (policymakers, businesses, communities and researchers/scientists) work together
266 within the city as an integrated Social Ecological System (SES). He argues that as a result
267 “the city is being negotiated as both the site and object of a nascent mode of experimental
268 governance” (Evans, 2011, p. 224). This suggests, on the one hand, that different urban
269 experimentations will inevitably produce more reflexive actor-inclusive forms of state- and

270 non-state governance that can subvert existing neoliberal logics of mitigation policy
271 propagated at the international and national scales.

272

273 On the other hand, to the extent that the climate policies of national states are aligning with
274 those of cities, urban climate adaptation strategies can be deployed in effect as geopolitical
275 instruments for states and other actors to influence wider (supranational) policy networks. For
276 example, international climate policy typically frames the climate change issue as an
277 economic problem of liberal democracy whereby carbon is commodified (Bernstein, 2002).
278 This framing marginalises any political debate about questions of inter-state and intra-
279 territorial social justice e.g. how nations and cities in the Global North have prospered from
280 historical GHG emissions, the effects of which are now experienced primarily by nations and
281 cities in the Global South (Bäckstrand and Lövbrand, 2006, 2016; Schipper, 2006). Although
282 we are witnessing a civil backlash in the form of the ‘new civil politics of climate change’
283 (Kythreotis and Mercer, n.d., forthcoming) (e.g. Extinction Rebellion mass protests and the
284 School for Strikes movement), these new urban social and environmental movements have
285 accelerated the search by national governments for policy actions that are designed to make
286 cities and local communities more resilient and less vulnerable to climate impacts.

287

288 Moreover, urban climate governance has become quite integral to efforts by nation states to
289 negotiate with, and potentially appease, rival competition states via international climate
290 negotiations. Take, for example, debates about climate transformation. The
291 Intergovernmental Panel on Climate Change (IPCC) Summary for Policymakers (SPM) for
292 Working Group II has defined transformation as “a change in the fundamental attributes of
293 natural and human systems... transformation could reflect strengthened, altered, or aligned
294 paradigms, goals, or values towards promoting adaptation for sustainable development,

295 including poverty reduction” (IPCC, 2014a, p. 5). In approaching transformation from a
296 systems perspective (natural and human), the IPCC definition opens up an ‘opportunity
297 space’ for nation states to mobilise urban climate governance and enable climate resilient
298 territorial development pathways through ‘iterative learning, deliberative process and
299 innovation’(IPCC, 2014a, p.29). Such systems thinking is further evidence of how urban
300 climate policy enters into the national and international policy arena, serving to make climate
301 change more palatable and, in the process, shaping scalar geopolitical practices (Bulkeley and
302 Betsill, 2005; cf. Bulkeley, 2005).

303

304 **III METHODS**

305 To investigate the unfolding scalar politics of climate governance in the UK, twenty-eight
306 semi-structured interviews were conducted with adaptation stakeholders across UK city-
307 regions from 2014-2017. These city-regions were chosen because they are located in different
308 devolved administrations of the UK (excluding Northern Ireland). They include Cardiff
309 (Wales), Glasgow and Edinburgh (Scotland), and Leeds, York, Hull and London (England).
310 Getting cross-sectional responses from the devolved UK territories was important because
311 England, Scotland and Wales have approached adaptation policy in slightly different ways,
312 notwithstanding central UK legislation through the Climate Change Act (2008). Such
313 legislation requires a UK policy framework for national risk assessments every five years, a
314 UK Committee on Climate Change (which comprises an adaptation sub-committee), the
315 National Adaptation Programme (NAP) and the UK Adaptation Reporting Power (Committee
316 on Climate Change, 2017). At the time, other legally non-binding policy initiatives were also
317 established by the Department of Environment, Farming and Rural Affairs (DEFRA) through
318 the Environment Agency (EA) to deal with climate impacts. For example, Climate Ready and
319 Climate Local were designed to assist businesses, communities and local government to

320 jointly deal with climate impacts like flooding. These initiatives have since been closed down
321 (Salvidge, 2016). A Local Adaptation Advisory Panel (LAAP) was also established in late
322 2010 by DEFRA to ensure the views of local councils in England were congruent with
323 nationally established policies on adaptation. Additionally, DEFRA and the EA part-funded
324 ‘Climate UK’ in 2011, a network of state and non-state organisations supporting climate
325 action across the UK in all devolved territories.

326

327 Hence, given how climate adaptation policy is discursively shaped by the different territorial
328 configurations of the UK state, we specifically wanted to examine how the broader
329 governance of climate adaptation, that is, how state and non-state actors have worked
330 together in promoting climate adaptation across different state spatial configurations as a
331 means to more closely examine the nuances of contemporary scalar climate geopolitics. It has
332 been argued, for instance, that successful adaptation strategies require distinct horizontal and
333 vertical multi-scalar governance responses by a variety of stakeholders, such that adaptation
334 policy influence is not solely attributed as being ‘state-led’ (Adger et al., 2005; Boyd and
335 Juhola, 2015).

336

337 Interviewees were chosen using a snowball technique, which allowed the researcher to use
338 the interviewees in developing the entire research network, rather than randomly interviewing
339 subjects (Valentine, 2005). Interviewees were drawn from environmental consultants, public
340 and third sector officials working at both urban and national scales. The interviews took the
341 form of a semi-structured interview which enabled the interviewer to focus on conceptual
342 themes related to the subject matter of the research, but to also explore nuances which allows
343 the interview to “take a conversational, fluid form, [with] each interview varying according to
344 the interests, experiences and views of the interviewee” (Valentine, 2005, p.111). This is

345 particularly pertinent with respect to empirically establishing how adaptation policy and
346 governance has a fundamentally temporal lens (i.e. long-term change and transformation)
347 (e.g. see Cook, 2018) but also can incorporate the nuances of seeing adaptation policy
348 through the lens of stakeholders experiencing processes of territorial devolution. Hence, the
349 interview guide consisted of a number of broad themes related to climate adaptation, its
350 governance and policy, and geographical scale. These included individual and organization,
351 funding, climate adaptation definitions and policies, climate transformation definitions and
352 policies, urban, national (UK and its devolved territories) and international (scalar) responses
353 and tensions surrounding climate adaptation, the role of adaptation knowledge mobilisation,
354 the nature of stakeholder relationships (governance) and changes, challenges and the future.
355

356 These semi-structured interviews were transcribed into Word documents and then analysed to
357 find emerging adaptation governance nuances derived from the broader themes cited above,
358 specifically around the scalar politics of climate adaptation. The grounded theory approach to
359 analysing the interview data was used after Corbin & Strauss (2008). That is the transcribed
360 documents were coded into nodes, and then conceptualized into more distinct groups and
361 categorized to derive particular themes that related to the initial broader themes of the semi-
362 structured interview brief. The grounded theory method is more empirically exploratory
363 rather than deductively fitting the data into any existing theory or preconceived data patterns
364 (Dubois and Gadde, 2002), enabling the development of a broader picture of how climate
365 adaptation governance (knowledge and policy) in the UK captures a scalar geopolitics built
366 around international, national and local/urban framings and knowledges of climate change.
367

368 Additionally, at the time when interviews commenced, adaptation was intuitively seen as a
369 national policy field in its own right (Massey and Huitema, 2012) and, as devolution has

370 progressed, the UK was witnessing a more reflexive bottom-up governance between different
371 state and non-state actors – ‘leaders and pioneers’(Wurzel et al., 2019) – often emanating in
372 cities coalescing around the low carbon mitigation agenda in the absence of strong
373 hierarchical mechanisms of the national state (Torney, 2019). Through the interview format
374 described above, we also expected to find new emergent forms of reflexive and co-productive
375 adaptation governance forming at and across different scales. In this sense, our findings
376 prompted us to suggest that urban and state internationalisation on climate policy and
377 governance are becoming more closely aligned even though urban and national spaces of
378 climate adaptation governance in the UK continue to be colonized by contradictory policy
379 discourses relating in part to contested knowledges and understandings of devolution as much
380 as those pertaining to climate change.

381

382 **IV CITIES AND THE GEOPOLITICS OF CLIMATE GOVERNANCE IN THE UK**

383 Drawing upon the research interview findings, this section explores three dimensions of the
384 scalar geopolitics of climate adaptation governance in the UK: (1) urban climate governance
385 and the internationalisation of the state; (2) climate governance and the ‘national’ question;
386 and (3) local climate policy knowledge and tensions between the urban and national scales.

387

388 ***4.1 Urban climate governance and the internationalisation of the UK state***

389 The first theme from the interview research concerns how climate governance at the urban
390 (sub-national) scale is enrolled in the UK state’s efforts to internationalise climate policy and
391 governance. This is significant because it has been argued that key empirical challenges
392 include the need to assess how urban climate governance has had a global impact and
393 whether cities have been effective in plugging the gap between action and policy rhetoric
394 created by national state inaction (van der Heijden, 2019; Wolfram et al., 2019). We find

395 evidence of an ongoing scalar tension that can act to delimit bottom-up climate governance –
396 contra the urban governance literature – whereby adaptation policy practice is structurally
397 dependent on how adaptation knowledge is politically mobilized at different scales of climate
398 governance, and in particular at the national and international scales, where science and
399 policy knowledge discourses on climate change, particularly resilience, have been
400 institutionalized (Göpfert et al., 2019; Johnson, 2018c; Kythreotis, 2018; Menkes and
401 Menkes, 2010; Purdon, 2015).

402

403 The IPCC has been the key international institution responsible for reviewing the latest
404 climate research and therefore holds significant sway in policy neutral advice. Although not
405 conducting any research itself, the IPCC does provide Summary for Policymakers (SPM)
406 reports, and many of our interviewees looked to global science-policy platforms for the
407 evidence-base to inform local policy decisions. For example, Interviewee 1 claimed how
408 *“Adaptation is that kind of classical, but ‘all encompassing’ IPCC definition around, it is a*
409 *description of the change that we are facing and the challenge of adapting to that.”*

410 Interviewee 2 argued, *“I think the IPCC reports, the increasing fact it is used by the*
411 *Government on climate adaptation, climate change helps the debate and makes it easier for*
412 *us because it is there...in front of people’s minds and that helps”*. Similarly, the importance
413 of the IPCC revolves around an established evidence-base to inform local decisions, as

414 Interviewee 3 argued, *“But we need to try and steer people into the fence and the evidence... I*
415 *think what was interesting for me was the evidence that came out from the IPCC you know on*
416 *that some of the climate sides... and that was the warning from the IPCC wasn't it?”*

417

418 IPCC reports have been written to be policy relevant and neutral rather than policy
419 prescriptive, so that policymakers can use the latest science to initiate policy via the

420 traditional linear model of expertise where truth speaks to power (Jasanoff and Wynne, 1998;
421 Bolin, 2007). Hence, the way in which the science (and what types of knowledge discourses
422 these take) is framed by the IPCC has important effects on other geopolitical issues, such as
423 conflict and security (Gleditsch and Nordås, 2014). How national politicians ‘scientize the
424 politics’ (e.g. US President Trump’s Tweets), or how scientists ‘politicize the science’ by
425 speaking politically about climate change when their role is simply to study climate change as
426 an ‘objective’ science based on observation (Forsyth, 2012), have important feedbacks into
427 the way that society culturally represents and responds to such knowledge discourses, e.g.
428 through media representations (Boykoff, 2008). Such representations highlight how
429 international geopolitical framing of climate change and their dominant science-policy
430 rationalities can influence pathways of adaptation response at the urban/local scale in more
431 discursively managed ways (Grove, 2016, 2014). Similarly, Johnson (2018b) has argued how
432 urban adaptation politics is often contradicted by national and international climate
433 discourses even though the policy intention is to make internationally framed science
434 discourses congruent with urban policy responses to climate risks. For example, Interviewee
435 4, in discussing the connection between IPCC-framed science and local policy action argued,

436

437 *“There is a need to remove the kind of mystique and the disconnect between the*
438 *science community and the policy community so it’s a two-way process. I think*
439 *researchers in order to change the world, you know people with scientific insights*
440 *that are important to bring to society, they need to be able to understand how best to*
441 *do that and that’s the sort of stuff that we are in a very tiny way...”*

442

443 The geopolitical reframing of urban climate governance by the nation state further resonates
444 with the idea that the climate science-policy process at the international scale is itself rigidly

445 ‘framed’ by pre-given assumptions about objectiveness and political neutrality, which can be
446 broadly indifferent to urban decision-making processes. Interviewee 5 argued, “*Policy should*
447 *reflect the local needs, local activities. I’m less keen on policies taken at an international*
448 *stage... so I think for me the idea of policy around climate change and climate change*
449 *adaptation would be best delivered by a balance of the realities of what it’s like on the*
450 *ground.*” This also resonates with the idea that (urban) transformation has a ‘heuristic,
451 subjective and relative character’ (Rickards and Howden, 2012, 242) that on the face of it,
452 may not conform to internationally-framed science-policy institutionalism. In this sense, the
453 internationalisation of climate change within the UK state conversely makes urban adaptation
454 action contingent upon how different forms of climate knowledge are managed, mobilized
455 and articulated ‘upscale’ in more formal institutionalized science-policy spaces.

456

457 Another example of the contradictory process of the internationalisation of the UK state in
458 urban adaptation action is related to how international framings are ostensibly dominated by
459 the climate mitigation science-policy framing. We have discussed this briefly in the
460 introduction and section 2.1, and our interviewees also highlighted how this was a problem
461 for implementing new forms of urban adaptation actions. For example, Interviewee 6
462 discussed the issue of mitigation dominating national climate policy discourse that affects
463 urban adaptation:

464

465 “*So, there’s an argument that they should play the role in thinking about how those*
466 *risks may change in the future. But that’s not really happening... and yes, I think*
467 *there isn’t enough of a link, policy join up between adaptation and mitigation. And I*
468 *think you could even argue that that’s partly a reflection of the Act, the Climate*
469 *Change Act where adaptation is a bit of an add on.*”

470

471 This was also reflected upon by Interviewee 7, who highlighted the scalar tensions of
472 mitigation and adaptation policymaking:

473

474 *“Mitigation is slightly different because national policy on mitigation is fairly easily*
475 *to tweak at local level but the adaptation stuff is very rigid in terms of how its*
476 *monitored and I find it a real struggle when you’re talking to people about it and*
477 *you’re like well we are actually talking about the agriculture bits of how it cross*
478 *merges. And I think that’s always going to be a challenge when adaptation policy is*
479 *written at national level is that every geographical area is completely different.”*

480

481 The reason for the emphasis on mitigation, argued Interviewee 8, was purely economic,
482 reflecting the internationalisation of the UK state in climate policy implementation:

483

484 *“There’s still very much a focus particularly in tough economic times on mitigation*
485 *because you can see that you’re going to save money on mitigation. You know it’s a*
486 *no brainer. You’re going to reduce your emissions... So, they can see that at the*
487 *start they want to do that. Things like renewables, that is suddenly flavour of the*
488 *month because again it’s mitigation and not adaptation... But other things for*
489 *adaptation it’s difficult to quantify what you’re going to say because it might not be*
490 *saving money.”*

491

492 National and international scales, therefore, remain in the very least a significant structural
493 causal factor that can shape not only how adaptation is politically governed at the urban scale.

494 Moreover, urban climate governance itself is internationalised through the actions of the

495 nation state in the way that it dominantly frames climate change through a low carbon
496 mitigation rhetoric that is economically incentivised.

497

498 ***4.2 Climate change and the ‘national’ question in the UK***

499 In our interviews, we further found that state-led institutionalized policy processes have
500 considerable power to frame the climate geopolitical debate around different interpretations
501 of the ‘national’, specifically in how adaptation decisions are made within a UK devolved
502 political context.

503

504 Since 2008, the statutory framework for climate change in the UK has been heralded as
505 something of a world leader in adaptation policy circles (Biesbroek et al., 2010; Massey and
506 Huitema, 2012). Hence, we expected to see the different devolved UK territories promoting
507 adaptation governance that could challenge existing policy systems, norms and paradigms in
508 unexpected ways (Nelson et al., 2007; O’Brien, 2012). For example, Wales and Scotland
509 have additional legislative requirements for climate adaptation. The Climate Change
510 (Scotland) Act of 2009 requires all public bodies (including local authorities) in Scotland to
511 report on adaptation if required by Scottish Ministers. Similarly, in Wales, the 2015 Well-
512 Being of Future Generations Act (WFGA) requires local authorities to take the lead on long-
513 term sustainability and adaptation issues through Public Service Boards (PSBs). PSBs are
514 scrutinized by a Future Generations Commissioner (FGC) who has the power to review how
515 PSBs approach local well-being and adaptation, and if something does go wrong, the PSB has
516 a duty to take all reasonable steps to follow the course of action recommended by the FGC.
517 Hence, the essence of the WFGA is to challenge the idea that adaptation responses will
518 always be reactive by joining-up cities and communities with government, specifically local
519 authorities, and related public agencies to autonomously and anticipatorily plan for climate

520 impacts in a bottom-up way. So, we certainly expected new forms of reflexive governance to
521 be emerging out of such a unique piece of legislation especially from our interviews in
522 Wales.

523

524 However, we found that the political context of UK devolution attributed urban actors to
525 appease national state (central) adaptation policy when more transformational pathways of
526 adaptation response threatened to emerge. Interviewee 2 clarified how national adaptation
527 policy (e.g. National Adaptation Programme) was supposed to seamlessly link with local
528 authority adaptation actions:

529

530 *“We wrote the Local Authority chapter, part of the National Adaptation Programme*
531 *or advised, there should be an adaptation, a Local Authority chapter and there should*
532 *be within the programme, pointing to all the actions of Local Authorities...”*

533

534 Hence, there was intention of mainstreaming adaptation between discrete policy scales.
535 However, interviewee 9 spoke of their relationship with DEFRA over how different forms of
536 policy knowledge were transferred between DEFRA and the EA:

537

538 *“[M]ore nationally, the EA is working with DEFRA... to shape what the National*
539 *Adaptation Programme looks like... So, DEFRA will informally seek our views... on*
540 *certain policy areas. They certainly do on climate change and, likewise, the EA will*
541 *respond to a consultation... that kind of two-way flow, but I think there is definitely a*
542 *clear line as to parts that we will discuss with DEFRA and things that aren't our*
543 *remit.”*

544

545 The above quotes suggest formal and non-formal mechanisms were embedded vertically and
546 horizontally within the state to ensure climate adaptation policy implementation. However,
547 such adaptation policy decisions were usually reduced to the economics of adaptation and
548 resource budgets. As the interviewee 9 continued:

549

550 *“We [EA] are a government funded organisation, [and] our task is delivering the*
551 *policy government sets us. [T]here are severe challenges in how we do it... A lot of*
552 *it’s tied up in high level conversations around policy and the amount of funding we*
553 *get and what we can and can’t do... we are encouraged... to actually deliver as much*
554 *as we can for every pound...”*

555

556 This also illustrates how economic austerity figures quite highly in adaptation decisions that
557 cascade down from higher to local policy scales (Porter et al., 2015). Similarly, interviewee
558 10 commented:

559

560 *“If your central nervous system of the economy fails ... it’s a pretty bad situation to*
561 *be in... the other longer-term aspects of adaptation, adaptation to the built*
562 *environment and green spaces... get side-lined in favour of it.”*

563

564 This economic driver for adaptation decisions was also surprisingly reflected by interviews in
565 Wales where the legislatively ‘ground-breaking’ WFGA had already come into force.
566 Interviewee 11, a climate consultant who historically worked closely with Welsh Government
567 on promoting local climate adaptation in communities argued:

568

569 *“There should be clear directive from Welsh Government to local government and*
570 *local service boards and via the Future Generations Bill [WFGA] ... I don't think it's*
571 *seen as a kind of priority issue by Welsh Government. That's reflected in the*
572 *guidance and money that's given to local government. There are no carrots and*
573 *there's no sticks. No power.”*

574

575 Other interviewees working in England also highlighted how institutional structures designed
576 to link local, regional and national adaptation policy and action were weakened under
577 changes of UK government moving from regional assemblies and regional development
578 agencies under New Labour to a more centralised national policy agenda on climate change
579 under the Conservative administration. Interviewee 12, an environmental consultant from the
580 Yorkshire and Humber region argued:

581

582 *2I think the LEP has ... the regional players at a high level ... but there isn't really a*
583 *mirror group underneath that... that's where the LEPs came about... you had*
584 *national indicators there and... local authorities doing a baseline then working your*
585 *way up through a full stage process to incorporate adaptation into the local authority*
586 *work and into local communities. When the change of government came about ... the*
587 *public sector has really been drifting... there isn't really anything that's guiding or*
588 *shaping local authorities or local communities in a particular direction of*
589 *adaptation.”*

590

591 Interviewee 2 also highlighted how institutional voids were created between policy scales
592 when there was a change of UK national government, hindering practical adaptation between
593 scales:

594 *“[I]t’s that void between the local office and the national office now we’ve got rid of*
595 *the regional offices. Yet we still have strategic managers from the EA meeting LA*
596 *strategic managers but there doesn’t seem to be that continuity between what the*
597 *officers are doing on the ground and what the vision is of all these organisations*
598 *working together. At an operational level, we’re very proactive in engaging with each*
599 *other and sharing information.”*

600

601 Such hollowing out of territorial government spaces in England, whilst working within a
602 devolved UK context, has created certain continuity issues that has made adaptation
603 governance roles opaque and messy, despite attempts to be proactive in seizing opportunities
604 to engage with other actors. However, the nature of scalar relations with respect to adaptation
605 governance was more nuanced in Scotland as compared to England and Wales. Interviewee
606 13, a city council officer working in Glasgow explained:

607

608 *“I feel we are already a step ahead with the climate change adaptation programme by*
609 *Scottish Government, it seems to echo a lot of what we have already done in terms of*
610 *Climate Ready Clyde... we will take a regional approach, rather than cities consider*
611 *themselves as a silo approach to look at impacts potentially where you can make*
612 *inroads.”*

613

614 Also, another Glasgow city council policy officer, interviewee 14, expressed the importance
615 of devolved Scotland over central UK guidance with respect to adaptation policy:

616

617 *“[Adaptation] consultation will be managed through the Scottish Government, rather*
618 *than us [city] directly linking into DEFRA for instance, that is more likely to be the*

619 *case... that we will see the civil servants from Edinburgh, who will have dealt with the*
620 *civil servants from Westminster as it were.”*

621

622 These interview findings suggest the way in which adaptation decisions were made in vertical
623 and horizontal relations within the UK state were through a nationally-orientated climate
624 politics governed by economic framings, budgets and costs. Yet Scotland was slightly
625 different to England and Wales in that the nature of this national politics coalesced within the
626 Scottish territory, rather than any articulation between UK central government and devolved
627 government in Edinburgh. In England and Wales, UK central government was able to
628 strategically-steer devolved adaptation decision-making. These interviews certainly highlight
629 the integral role of national politics in framing urban adaptation responses. The next section
630 builds on this section by discussing the ways in which national and urban spaces of climate
631 adaptation governance in the UK are in tension through the colonisation of contradictory
632 policy and governance discourses.

633

634 ***4.3 The contradictory discourses of urban and national climate adaptation governance and*** 635 ***policy***

636 Our third finding concerns how national and urban spaces of climate adaptation governance
637 and policy in the UK are being colonized by contradictory discourses, and how this is
638 reflected in the local circulation of climate knowledges. Having already established the
639 complex, unevenly distributed and cross-cutting scalar politics of adaptation (Boyd and
640 Juhola, 2015; Nightingale, 2017; Rauken et al., 2014; Urwin and Jordan, 2008), measuring
641 the effectiveness of urban and local adaptation governance is problematic given that such
642 polycentric governance can be well-removed from top-down international policy fixity
643 (Abbott, 2012; Ostrom, 2010; Jordan et al., 2015). Thus the heuristic potential to use

644 knowledge of scalar politics to articulate more effective climate adaptation governance is
645 central to future innovation and transformation being discursively framed at the urban scale
646 (Haarstad, 2014; Amundsen et al., 2010).

647

648 Bulkeley et al. (2013) have argued how urban climate experiments represent a socio-technical
649 response to how climate mitigation and adaptation are being configured and contested. They
650 continue by arguing that such experiments unfold in the most unlikely of places having
651 unseen and unexpected political repercussions within wider urban transition processes and
652 move beyond, and even enervate more formally structured, institutionalized ways of climate
653 adaptation policymaking. Grove (2016) has shown how formal insurance schemes designed
654 to mitigate climate disaster and risk and promote greater local adaptive capacity are in fact
655 reconfigured through certain governance and power rationalities that perpetuate the global
656 logic of financial capital accumulation. Oosterlynck & González (2013) have also shown how
657 experimental urban governance represents a re-assemblage of existing international and
658 national neoliberal discourses. This complements other work that sees climate change
659 governance politically mobilized as a neoliberal discursive action (Braun, 2014;
660 Swyngedouw, 2013, 2010, 2007).

661

662 The results of our interviews suggest that downscale pressures trumped bottom-up
663 transformations in urban adaptation governance. We find little evidence of cities and local
664 communities having increased autonomy in local adaptation governance decisions. However,
665 we found pockets of governance actions by some local stakeholders that took advantage of
666 the existing policy system, trying to work within pre-defined parameters of state policy
667 structures on adaptation. Here local trust (and, by implication, distrust) between political
668 scales and state territories was a constant theme that emerged in many interviews. For

669 example, interviewee 15 from Climate UK talked of seizing ‘opportunity’ and being
670 ‘pragmatic’ by knowing how ‘to talk to national politicians in a certain way to get what you
671 want’ and ‘developing trust to initiate change’. Another interviewee (12) was quick to point
672 out embedded issues of trust between different government agencies operating at different
673 scales:

674

675 *“At a local level there is a general distrust of LAs... they don’t really know best.*
676 *There’s a distrust of people like the EA... the way they generate decisions because*
677 *they are not right for that person living in one of those houses that hasn’t been*
678 *prioritised by the EA who got flooded... I think flipping that the other way in terms of*
679 *power, LAs, there is an element of that in terms of what we can do, and we can’t do,*
680 *engaging with communities... There’s a lot of posturing going on and a lot of distrust*
681 *between the unitary authorities in between the LEP and the government there’s an*
682 *element of distrust into the motives.”*

683

684 So, if there is distrust within government, how would one expect more transformational
685 governance responses to climate adaptation to emerge through social contracts between state
686 and non-state governance actors, let alone reflexive, autonomous bottom-up responses from
687 local communities? Interviewee, who worked closely with local Scottish communities
688 reflected on this, viewing adaptation action as being congruent with having empathy with
689 different socially-situated contexts:

690

691 *“I think adaptation action is having empathy and understanding, the starting point*
692 *that people are important... acknowledging that we don’t have all of the answers, so*
693 *actually we don’t need more adaptation experts. We need people who are experts in*

694 *different sectors and fields to learn about adaptation and apply that knowledge in*
695 *their own sectors... that is really important. So, some of the really good work that has*
696 *happened through planning is because people from different organisations and areas*
697 *of expertise have come and really engaged on adaptation and then applied it in their*
698 *context in quite transformational ways.”*

699

700 This suggests that ideas of transformation in local adaptation governance are enacted and
701 reconstituted in less obvious, but nevertheless, more reflexive and innovative ways within
702 state-led adaptation policy structures; albeit this occurs in highly contradictory and often
703 contested ways across UK devolved territories. Trust plays a key role in establishing new
704 urban pathways to adaptation, but nevertheless such pathways are interjected by the
705 discursive alignment of the ‘urban’ and the ‘national’ through mitigation policy discourses
706 that infiltrate state internationalisation of climate policy.

707

708 **V CONCLUSION**

709 Our argument in this paper is that the participation of cities in climate governance introduces
710 a complex scalar geopolitics shaping climate adaptation that is contingent on the type(s) of
711 knowledge networks and governance relationships operating at the international, national and
712 urban scales. Rather than cities being detached from nation states, cities and nation states
713 have become closely intertwined in climate governance processes. Sometimes, cities lobby
714 international climate networks such as the C40 and IPPC; at other times, nation states use
715 urban climate policy to negotiate with, and appease, their geopolitical competitors; on still
716 other occasions, climate policy is enrolled in efforts by the state to manage domestic political
717 problems, not least contested processes of devolution. As Dierwechter (2020, 399) argues,
718 “Cities, states and global environmental politics are ‘co-shaping’ each other, producing a

719 global variety of green (and other kinds of) geopolitics”. How better to understand these
720 ‘green’ geopolitical processes likely represents a major new research agenda in comparative
721 approaches to territory, politics and governance in the coming years.

722

723 The findings of this paper also bear upon the point that Dalby (2013a) makes in his analysis
724 of Kahn (Kahn, 2013) in that engendering a more effective climate change geopolitics is
725 about much more than the role of national states, even though such states hold
726 disproportionate amounts of power in shaping international climate geopolitics (Kythreotis,
727 2012). Rather, climate geopolitics should be about so much more than dominant mitigation
728 policy framings that straddle national and international scales. It is wholly a political issue of
729 how it is represented at other scales, too, especially the urban and regional scales and their
730 respective (devolved) state territories (Dalby, 2016). Viewing climate geopolitics through a
731 scalar lens refocuses how climate adaptation territorial governance responses might be more
732 successful. The urban and regional scales are where the nuts-and-bolts of climate governance
733 and policy are structurally (state-led policy) and/or reflexively (state and non-state
734 governance) played out. Hence, we argue that the climate adaptation territorial governance
735 debate should refocus its epistemological gaze on the links and interconnections between the
736 international, national and urban (city-region) scales as a means to reinforce the politics of
737 adaptation as a geopolitics of scale in which the future of cities is increasingly implicated.

738

739 In reinforcing the politics of adaptation as a geopolitics of scale, this paper has further
740 highlighted the nature of interconnections between otherwise missing scales of analysis in the
741 climate geopolitics debate: (i) the increasing discursive alignment of the ‘urban’ and the
742 ‘national’ in international climate adaptation policy and decision-making processes; and (ii)
743 the contradictions between urban and national climate policy discourses across the UK

744 devolved territories. Through interviews with a range of adaptation stakeholders working
745 across the UK and its devolved territories of Scotland, Wales and England, we have shown
746 how some actors strategically used local deliberative processes as an ‘opportunity space’ for
747 governance, as framed by the IPCC (2014c, 29). Yet reconstitution of adaptation being
748 approached in more amorphous ways by our interviewees e.g. trust/distrust, pragmatism,
749 empathy, also highlights how the practical cross-cutting nature of climate governance – its
750 scalar geopolitics – poses problems for the institutional make-up and decision-making
751 processes of territorial governance, resulting in a lack of ‘fit’ between the nature of the
752 problem to be governed and the institutions undertaking that governance (Betsill and
753 Bulkeley, 2007; Lawrence et al., 2015).

754

755 All of this leads us to question the notion of whether the urban scale is at all autonomous in
756 governing appropriate (and transformational) climate adaptation responses. Rather, cities and,
757 increasingly, city-regions are part of a messy territorial governance system that at best,
758 provides a limited ‘opportunity space’ for quasi-autonomous intervention by certain actors
759 within pre-defined national state policy structures, e.g. the UK National Adaptation
760 Programme. We find that current adaptation governance processes operating at the urban
761 scale in a devolved UK state are more than simply an extension of the ‘collective’ national
762 politics that go on through the internationalisation of the state via the mitigation policy
763 imperative, although they are certainly deeply influenced by them as our interviews illustrate.
764 They also go to the heart of the problematic ‘national’ question operating within the devolved
765 UK state. These empirical findings suggest that the climate geopolitics debate needs to more
766 fully analyse and incorporate the contradictory nature of how adaptation knowledge is
767 mobilized at different scales of territorial climate governance in order to fully expose how
768 urban adaptation is fully played out as a more equitable and just geopolitics of scale.

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