Rethinking urban adaptation as a scalar geopolitics of climate governance: climate policy in the devolved territories of the United Kingdom**

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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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I INTRODUCTION

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

Hitherto the geopolitics of climate governance has been principally framed by hegemonic discourses of the free market and global capitalism, where climate policy is shaped by international free markets and inter-state competition (Kahn, 2013). Nonetheless, there are 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 adaptation[1] 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

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[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)

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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.

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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, 2019), 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; Huitema 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 Moisio, 2018). The remainder

218   of this section considers the role of urban climate governance in processes of state

219   internationalisation and devolved territorial politics.

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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 a unidirectional trend towards the decline of the nation state as

226   the centrepiece of a 'post-Westphalian' international political order (Kreuder-Sonnen and

227   Zangl, 2015). It might be stretching the point to say that today's cities have become so

228   detached from nation states that, when it comes to climate adaptation and other forms of

229   sustainability governance, urban managers behave as autonomous geopolitical actors.

230   Nonetheless, the growing internationalisation of urban climate actions requires a fundamental

231   rethinking about the role of cities and, increasingly, city-regions in the emerging system of

232   international governance. As Dierwechter (2020) argues, the coming years could well mark

233   the arrival of a 'green geopolitics' of urban development in which cities, states, and global

234   climate politics become closely intertwined.

235

236   This development, in turn, necessitates a more critical understanding of the role of cities in

237   climate geopolitics, whereby the international competitiveness and resilience of the modern

238   state is secured not so much by the control of its territory and borders as by its ability to

239   harness flows of capital and policy knowledge around and through its burgeoning city-

240   regional formations (Moisio, 2018). Indeed, the convergence of discourses of international

241   competitiveness and climate change could be contributing to a significant re-territorialisation

242   of the state around all sorts of newly emergent urban spatial formations (e.g. city-regions) and

243   their associated climate actions and policy discourses.

244

245   At the same time, climate adaptation policy opens up opportunities for devolved states to

246   pursue and promote 'national' projects of environmental governance and socio-territorial

247   redistribution within across their territories, some of which serve to manage growing societal

248   tensions and environmental injustices within national state borders. We have already noted

249   that urban politicians and managers engage in various forms of climate diplomacy, which

250   enable their host cities to reach out far beyond national borders and access global flows of

251   information, capital, resources, and policy knowledge (cf. Phelps and Miao, 2019). At the

252   same time, however, the 'national' is incorporated into the urban in different geographical

253   contexts and political projects, ranging from economic development, immigration control,

254   biosecurity and climate change (Coleman, 2009). Hence the 'eco-restructuring' of states and

255   cities – for example, the search for carbon neutral forms of urban development and territorial

256   governance (Rice, 2010) – is a co-constituted yet contested process of state spatial

257   transformation (While et al., 2010; Jonas et al., 2011; Moisio et al., 2020).

258

259   The necessarily territorialised form of national-state orchestrated politics of climate

260   adaptation further manifests itself in projects and interventions that bring together

261   transnational actors, state officials and urban managers, who mobilise international climate

262   policy through local circuits of knowledge. For example, Evans (2011) illustrates how

263   adaptive experiments are embedded into urban governance whereby different state and non-

264   state actors (policymakers, businesses, communities and researchers/scientists) work together

265   within the city as an integrated Social Ecological System (SES). He argues that as a result

266   "the city is being negotiated as both the site and object of a nascent mode of experimental

267   governance" (Evans, 2011, p. 224). This suggests, on the one hand, that different urban

268   experimentations will inevitably produce more reflexive actor-inclusive forms of state- and

269   non-state governance that can subvert existing neoliberal logics of mitigation policy

270   propagated at the international and national scales.

271

272   On the other hand, to the extent that the climate policies of national states are aligning with

273   those of cities, urban climate adaptation strategies can be deployed in effect as geopolitical

274   instruments for states and other actors to influence wider (supranational) policy networks. For

275   example, international climate policy typically frames the climate change issue as an

276   economic problem of liberal democracy whereby carbon is commodified (Bernstein, 2002).

277   This framing marginalises any political debate about questions of inter-state and intra-

278   territorial social justice e.g. how nations and cities in the Global North have prospered from

279   historical GHG emissions, the effects of which are now experienced primarily by nations and

280   cities in the Global South (Bäckstrand and Lövbrand, 2006, 2016; Schipper, 2006). Although

281   we are witnessing a civil backlash in the form of the 'new civil politics of climate change'

282   (Kythreotis and Mercer, n.d., forthcoming) (e.g. Extinction Rebellion mass protests and the

283   School for Strikes movement), these new urban social and environmental movements have

284   accelerated the search by national governments for policy actions that are designed to make

285   their cities and local communities more resilient and less vulnerable to climate impacts.

286

287   Moreover, urban climate governance has become quite integral to efforts by nation states to

288   negotiate with, and potentially appease, rival competition states via international climate

289   negotiations. Take, for example, debates about climate transformation. The

290   Intergovernmental Panel on Climate Change (IPCC) Summary for Policymakers (SPM) for

291   Working Group II has defined transformation as "a change in the fundamental attributes of

292   natural and human systems… transformation could reflect strengthened, altered, or aligned

293   paradigms, goals, or values towards promoting adaptation for sustainable development,

294   including poverty reduction" (IPCC, 2014a, p. 5). In approaching transformation from a

295   systems perspective (natural and human), the IPCC definition opens up an 'opportunity

296   space' for nation states to mobilise urban climate governance and enable climate resilient

297 territorial development pathways through 'iterative learning, deliberative process and

298 innovation'(IPCC, 2014a, p.29). Such systems thinking is further evidence of how urban

299 climate policy enters into the national and international policy arena, serving to make climate

300 change more palatable and, in the process, shaping scalar geopolitical practices (Bulkeley and

301 Betsill, 2005; cf. Bulkeley, 2005).

302

303 **IV METHODS**

304 To investigate the unfolding scalar politics of climate governance in the UK, twenty-eight

305 semi-structured interviews were conducted with adaptation stakeholders across UK city-

306 regions from 2014-2017. These city-regions were chosen because they are located in different

307 devolved administrations of the UK (excluding Northern Ireland). They include Cardiff

308 (Wales), Glasgow and Edinburgh (Scotland), and Leeds, York, Hull and London (England).

309 Getting cross-sectional responses from the devolved UK territories was important because

310 England, Scotland and Wales have approached adaptation policy in slightly different ways,

311 notwithstanding central UK legislation through the Climate Change Act (2008). Such

312 legislation requires a UK policy framework for national risk assessments every five years, a

313 UK Committee on Climate Change (which comprises an adaptation sub-committee), the

314 National Adaptation Programme (NAP) and the UK Adaptation Reporting Power (Committee

315 on Climate Change, 2017). At the time, other legally non-binding policy initiatives were also

316 established by the Department of Environment, Farming and Rural Affairs (DEFRA) through

317 the Environment Agency (EA) to deal with climate impacts. For example, Climate Ready and

318 Climate Local were designed to assist businesses, communities and local government to

319 jointly deal with climate impacts like flooding. These initiatives have since been closed down

320 (Salvidge, 2016). A Local Adaptation Advisory Panel (LAAP) was also established in late

321 2010 by DEFRA to ensure the views of local councils in England were congruent with

322   nationally established policies on adaptation. Additionally, DEFRA and the EA part-funded

323   'Climate UK' in 2011, a network of state and non-state organisations supporting climate

324   action across the UK in all devolved territories.

325

326   Hence, given how climate adaptation policy is discursively shaped by the different territorial

327   configurations of the UK state, we specifically wanted to examine how the broader

328   governance of climate adaptation, that is, how state and non-state actors have worked

329   together in promoting climate adaptation across different state spatial configurations as a

330   means to more closely examine the nuances of contemporary scalar climate geopolitics. It has

331   been argued, for instance, that successful adaptation strategies require distinct horizontal and

332   vertical multi-scalar governance responses by a variety of stakeholders, such that adaptation

333   policy influence is not solely attributed as being 'state-led' (Adger et al., 2005; Boyd and

334   Juhola, 2015).

335

336   Interviewees were chosen using a snowball technique, which allowed the researcher to use

337   the interviewees in developing the entire research network, rather than randomly interviewing

338   subjects (Valentine, 2005). Interviewees were drawn from environmental consultants, public

339   and third sector officials working at both urban and national scales. The interviews took the

340   form of a semi-structured interview which enabled the interviewer to focus on conceptual

341   themes related to the subject matter of the research, but to also explore nuances which allows

342   the interview to "take a conversational, fluid form, [with] each interview varying according to

343   the interests, experiences and views of the interviewee" (Valentine, 2005, p.111). This is

344   particularly pertinent with respect to empirically establishing how adaptation policy and

345   governance has a fundamentally temporal lens (i.e. long-term change and transformation)

346   (e.g. see Cook, 2018) but also can incorporate the nuances of seeing adaptation policy

through the lens of stakeholders experiencing processes of territorial devolution. Hence, the interview guide consisted of a number of broad themes related to climate adaptation, its governance and policy, and geographical scale. These included individual and organization, funding, climate adaptation definitions and policies, climate transformation definitions and policies, urban, national (UK and its devolved territories) and international (scalar) responses and tensions surrounding climate adaptation, the role of adaptation knowledge mobilisation, the nature of stakeholder relationships (governance) and changes, challenges and the future.

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

 Additionally, at the time when interviews commenced, adaptation was intuitively seen as a national policy field in its own right (Massey and Huitema, 2012) and, as devolution has progressed, the UK was witnessing a more reflexive bottom-up governance between different state and non-state actors – 'leaders and pioneers'(Wurzel et al., 2019) – often emanating in cities coalescing around the low carbon mitigation agenda in the absence of strong

372 hierarchical mechanisms of the national state (Torney, 2019). Through the interview format

373 described above, we also expected to find new emergent forms of reflexive and co-productive

374 adaptation governance forming at and across different scales. In this sense, our findings

375 prompted us to suggest that urban and state internationalisation on climate policy and

376 governance are becoming more closely aligned even though urban and national spaces of

377 climate adaptation governance in the UK continue to be colonized by contradictory policy

378 discourses relating in part to contested knowledges and understandings of devolution as much

379 as those pertaining to climate change.

380

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

382 Drawing upon the research interview findings, this section explores three dimensions of the

383 scalar geopolitics of climate adaptation governance in the UK: (1) urban climate governance

384 and the internationalisation of the state; (2) climate governance and the 'national' question;

385 and (3) local climate policy knowledge and tensions between the urban and national scales.

386

387 *4.1 Urban climate governance and the internationalisation of the UK state*

388 The first theme from the interview research concerns how climate governance at the urban

389 (sub-national) scale is enrolled in the UK state's efforts to internationalise climate policy and

390 governance. This is significant because it has been argued that key empirical challenges

391 include the need to assess how urban climate governance has had a global impact and

392 whether cities have been effective in plugging the gap between action and policy rhetoric

393 created by national state inaction (van der Heijden, 2019; Wolfram et al., 2019). We find

394 evidence of an ongoing scalar tension that can act to delimit bottom-up climate governance –

395 contra the urban governance literature – whereby adaptation policy practice is structurally

396 dependent on how adaptation knowledge is politically mobilized at different scales of climate

397 governance, and in particular at the national and international scales, where science and

398 policy knowledge discourses on climate change, particularly resilience, have been

399 institutionalized (Göpfert et al., 2019; Johnson, 2018c; Kythreotis, 2018; Menkes and

400 Menkes, 2010; Purdon, 2015).

401

402 The IPCC has been the key international institution responsible for reviewing the latest

403 climate research and therefore holds significant sway in policy neutral advice. Although not

404 conducting any research itself, the IPCC does provide Summary for Policymakers (SPM)

405 reports, and many of our interviewees looked to global science-policy platforms for the

406 evidence-base to inform local policy decisions. For example, Interviewee 1 claimed how

407 *"Adaptation is that kind of classical, but 'all encompassing' IPCC definition around, it is a*

408 *description of the change that we are facing and the challenge of adapting to that."*

409 Interviewee 2 argued, *"I think the IPCC reports, the increasing fact it is used by the*

410 *Government on climate adaptation, climate change helps the debate and makes it easier for*

411 *us because it is there…in front of people's minds and that helps".* Similarly, the importance

412 of the IPCC revolves around an established evidence-base to inform local decisions, as

413 Interviewee 3 argued, *"But we need to try and steer people into the fence and the evidence... I*

414 *think what was interesting for me was the evidence that came out from the IPCC you know on*

415 *that some of the climate sides… and that was the warning from the IPCC wasn't it? If we*

416 *don't pay attention to this…"*

417

418 IPCC reports have been written to be policy relevant and policy 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, trying to contribute*

442 *to…"*

443

444 The geopolitical reframing of urban climate governance by the nation state further resonates

445 with the idea that the climate science-policy process at the international scale is itself rigidly

446 'framed' by pre-given assumptions about objectiveness and political neutrality, which can be

447   broadly indifferent to urban decision-making processes. Interviewee 5 argued, *"Policy should*

448   *reflect the local needs, local activities. I'm less keen on policies taken at an international*

449   *stage… so I think for me the idea of policy around climate change and climate change*

450   *adaptation would be best delivered by a balance of the realities of what it's like on the*

451   *ground."* This also resonates with the idea that (urban) transformation has a 'heuristic,

452   subjective and relative character' (Rickards and Howden, 2012, 242) that on the face of it,

453   may not conform to internationally-framed science-policy institutionalism. In this sense, the

454   internationalisation of climate change within the UK state conversely makes urban adaptation

455   action contingent upon how different forms of climate knowledge are managed, mobilized

456   and articulated 'upscale' in more formal institutionalized science-policy spaces.

457

458   Another example of the contradictory process of the internationalisation of the UK state in

459   urban adaptation action is related to how international framings are ostensibly dominated by

460   the climate mitigation science-policy framing. We have discussed this briefly in the

461   introduction and section 2.1, and our interviewees also highlighted how this was a problem

462   for implementing new forms of urban adaptation actions. For example, Interviewee 6

463   discussed the issue of mitigation dominating national climate policy discourse that affects

464   urban adaptation:

465

466   *"So, there's an argument that they should play the role in thinking about how those*

467   *risks may change in the future. But that's not really happening… and yes, I think*

468   *there isn't enough of a link, policy join up between adaptation and mitigation. And I*

469   *think you could even argue that that's partly a reflection of the Act, the Climate*

470   *Change Act where adaptation is a bit of an add on."*

471

472 This was also reflected upon by Interviewee 7, who highlighted the scalar tensions of

473 mitigation and adaptation policymaking:

474

475   *"Mitigation is slightly different because national policy on mitigation is fairly easily*

476   *to tweak at local level but the adaptation stuff is very rigid in terms of how its*

477   *monitored and I find it a real struggle when you're talking to people about it and*

478   *you're like well we are actually talking about the agriculture bits of how it cross*

479   *mergers. And I think that's always going to be a challenge when adaptation policy is*

480   *written at national level is that every geographical area is completely different."*

481

482 The reason for the emphasis on mitigation, argued Interviewee 8, was purely economic,

483 reflecting the internationalisation of the UK state in climate policy implementation:

484

485   *"There's still very much a focus particularly in tough economic times on mitigation*

486   *because you can see that you're going to save money on mitigation. You know it's a*

487   *no brainer. You're going to reduce your emissions… So, they can see that at the*

488   *start they want to do that. Things like renewables, that is suddenly flavour of the*

489   *month because again it's mitigation and not adaptation… But other things for*

490   *adaptation it's difficult to quantify what you're going to say because it might not be*

491   *saving money."*

492

493 National and international scales, therefore, remain in the very least a significant structural

494 causal factor that can shape not only how adaptation is politically governed at the urban scale.

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

496 nation state in the way that it dominantly frames climate change through a low carbon

497 mitigation rhetoric that is economically incentivised.

498

499 *4.2 Climate change and the 'national' question in the UK*

500 In our interviews, we further found that state-led institutionalized policy processes have

501 considerable power to frame the climate geopolitical debate around different interpretations

502 of the 'national', specifically in how adaptation decisions are made within a UK devolved

503 political context.

504

505 Since 2008, the statutory framework for climate change in the UK has been heralded as

506 something of a world leader in adaptation policy circles (Biesbroek et al., 2010; Massey and

507 Huitema, 2012). Hence, we expected to see the different devolved UK territories promoting

508 adaptation governance that could challenge existing policy systems, norms and paradigms in

509 unexpected ways (Nelson et al., 2007; O'Brien, 2012). For example, Wales and Scotland

510 have additional legislative requirements for climate adaptation. The Climate Change

511 (Scotland) Act of 2009 requires all public bodies (including local authorities) in Scotland to

512 report on adaptation if required by Scottish Ministers. Similarly, in Wales, the 2015 Well-

513 Being of Future Generations Act (WFGA) requires local authorities to take the lead on long-

514 term sustainability and adaptation issues through Public Service Boards (PSBs). PSBs are

515 scrutinized by a Future Generations Commissioner (FGC) who has the power to review how

516 PSBs approach local well-being and adaptation, and if something does go wrong, the PSB has

517 a duty to take all reasonable steps to follow the course of action recommended by the FGC.

518 Hence, the essence of the WFGA is to challenge the idea that adaptation responses will

519 always be reactive by joining-up cities and communities with government, specifically local

520 authorities, and related public agencies to autonomously and anticipatorily plan for climate

521 impacts in a bottom-up way. So, we certainly expected new forms of reflexive governance to

522 be emerging out of such a unique piece of legislation especially from our interviews in

523 Wales.

524

525 However, we found that the political context of UK devolution attributed urban actors to

526 appease national state (central) adaptation policy when more transformational pathways of

527 adaptation response threatened to emerge. Interviewee 2 clarified how national adaptation

528 policy (e.g. National Adaptation Programme) was supposed to seamlessly link with local

529 authority adaptation actions:

530

531   *"We wrote the Local Authority chapter, part of the National Adaptation Programme*

532   *or advised, there should be an adaptation, a Local Authority chapter and there should*

533   *be within the programme, pointing to all the actions of Local Authorities…"*

534

535 Hence, there was intention of mainstreaming adaptation between discrete policy scales.

536 However, interviewee 9 spoke of their relationship with DEFRA over how different forms of

537 policy knowledge were transferred between DEFRA and the EA:

538

539   *"[M]ore nationally, the EA is working with DEFRA… to shape what the National*

540   *Adaptation Programme looks like… So, DEFRA will informally seek our views… on*

541   *certain policy areas. They certainly do on climate change and, likewise, the EA will*

542   *respond to a consultation...   that kind of two-way flow, but I think there is definitely a*

543   *clear line as to parts that we will discuss with DEFRA and things that aren't our*

544   *remit."*

545

546 The above quotes suggest formal and non-formal mechanisms were embedded vertically and

547 horizontally within the state to ensure climate adaptation policy implementation. However,

548 such adaptation policy decisions were usually reduced to the economics of adaptation and

549 resource budgets. As the interviewee 9 continued:

550

551 *"We [EA] are a government funded organisation, [and] our task is delivering the*

552 *policy government sets us. [T]here are severe challenges in how we do it… A lot of*

553 *it's tied up in high level conversations around policy and the amount of funding we*

554 *get and what we can and can't do… we are encouraged… to actually deliver as much*

555 *as we can for every pound…"*

556

557 This also illustrates how economic austerity figures quite highly in adaptation decisions that

558 cascade down from higher to local policy scales (Porter et al., 2015). Similarly, interviewee

559 10 commented:

560

561 *"If your central nervous system of the economy fails … it's a pretty bad situation to*

562 *be in… the other longer-term aspects of adaptation, adaptation to the built*

563 *environment and green spaces… get side-lined in favour of it."*

564

565 This economic driver for adaptation decisions was also surprisingly reflected by interviews in

566 Wales where the legislatively 'ground-breaking' WFGA had already come into force.

567 Interviewee 11, a climate consultant who historically worked closely with Welsh Government

568 on promoting local climate adaptation in communities argued:

569

570   *"There should be clear directive from Welsh Government to local government and*

571   *local service boards and via the Future Generations Bill [WFGA] … I don't think it's*

572   *seen as a kind of priority issue by Welsh Government. That's reflected in the*

573   *guidance and money that's given to local government. There are no carrots and*

574   *there's no sticks. No power."*

575

576 Other interviewees working in England also highlighted how institutional structures designed

577 to link local, regional and national adaptation policy and action were weakened under

578 changes of UK government moving from regional assemblies and regional development

579 agencies under New Labour to a more centralised national policy agenda on climate change

580 under the Conservative administration. Interviewee 12, an environmental consultant from the

581 Yorkshire and Humber region argued:

582

583   *2I think the LEP has… the regional players at a high level … but there isn't really a*

584   *mirror group underneath that… that's where the LEPs came about… you had*

585   *national indicators there and… local authorities doing a baseline then working your*

586   *way up through a full stage process to incorporate adaptation into the local authority*

587   *work and into local communities. When the change of government came about … the*

588   *public sector has really been drifting… there isn't really anything that's guiding or*

589   *shaping local authorities or local communities in a particular direction of*

590   *adaptation."*

591

592 Interviewee 2 also highlighted how institutional voids were created between policy scales

593 when there was a change of UK national government, hindering practical adaptation between

594 scales:

595 *"[I]t's that void between the local office and the national office now we've got rid of*

596 *the regional offices. Yet we still have strategic managers from the EA meeting LA*

597 *strategic managers but there doesn't seem to be that continuity between what the*

598 *officers are doing on the ground and what the vision is of all these organisations*

599 *working together. At an operational level, we're very proactive in engaging with each*

600 *other and sharing information."*

601

602 Such hollowing out of territorial government spaces in England, whilst working within a

603 devolved UK context, has created certain continuity issues that has made adaptation

604 governance roles opaque and messy, despite attempts to be proactive in seizing opportunities

605 to engage with other actors. However, the nature of scalar relations with respect to adaptation

606 governance was more nuanced in Scotland as compared to England and Wales. Interviewee

607 13, a city council officer working in Glasgow explained:

608

609 *"I feel we are already a step ahead with the climate change adaptation programme by*

610 *Scottish Government, it seems to echo a lot of what we have already done in terms of*

611 *Climate Ready Clyde… we will take a regional approach, rather than cities consider*

612 *themselves as a silo approach to look at impacts potentially where you can make*

613 *inroads."*

614

615 Also, another Glasgow city council policy officer, interviewee 14, expressed the importance

616 of devolved Scotland over central UK guidance with respect to adaptation policy:

617

618 *"[Adaptation] consultation will be managed through the Scottish Government, rather*

619 *than us [city] directly linking into DEFRA for instance, that is more likely to be the*

620   *case… that we will see the civil servants from Edinburgh, who will have dealt with the*

621   *civil servants from Westminster as it were."*

622

623   These interview findings suggest the way in which adaptation decisions were made in vertical

624   and horizontal relations within the UK state were through a nationally-orientated climate

625   politics governed by economic framings, budgets and costs. Yet Scotland was slightly

626   different to England and Wales in that the nature of this national politics coalesced within the

627   Scottish territory, rather than any articulation between UK central government and devolved

628   government in Edinburgh. In England and Wales, UK central government was able to

629   strategically-steer devolved adaptation decision-making. These interviews certainly highlight

630   the integral role of national politics in framing urban adaptation responses. The next section

631   builds on this section by discussing the ways in which national and urban spaces of climate

632   adaptation governance in the UK are in tension through the colonisation of contradictory

633   policy and governance discourses.

634

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

636   *policy*

637   Our third finding concerns how national and urban spaces of climate adaptation governance

638   and policy in the UK are being colonized by contradictory discourses, and how this is

639   reflected in the local circulation of climate knowledges. Having already established the

640   complex, unevenly distributed and cross-cutting scalar politics of adaptation (Boyd and

641   Juhola, 2015; Nightingale, 2017; Rauken et al., 2014; Urwin and Jordan, 2008), measuring

642   the effectiveness of urban and local adaptation governance is problematic given that such

643   polycentric governance can be well-removed from top-down international policy fixity

644   (Abbott, 2012; Ostrom, 2010; Jordan et al., 2015). Thus the heuristic potential to use

645 knowledge of scalar politics to articulate more effective climate adaptation governance is

646 central to future innovation and transformation being discursively framed at the urban scale

647 (Haarstad, 2014; Amundsen et al., 2010).

648

649 Bulkeley et al. (2013) have argued how urban climate experiments represent a socio-technical

650 response to how climate mitigation and adaptation are being configured and contested. They

651 continue by arguing that such experiments unfold in the most unlikely of places having

652 unseen and unexpected political repercussions within wider urban transition processes and

653 move beyond, and even enervate more formally structured, institutionalized ways of climate

654 adaptation policymaking. Grove (2016) has shown how formal insurance schemes designed

655 to mitigate climate disaster and risk and promote greater local adaptive capacity are in fact

656 reconfigured through certain governance and power rationalities that perpetuate the global

657 logic of financial capital accumulation. Oosterlynck & González (2013) have also shown how

658 experimental urban governance represents a re-assemblage of existing international and

659 national neoliberal discourses. This complements other work that sees climate change

660 governance politically mobilized as a neoliberal discursive action (Braun, 2014;

661 Swyngedouw, 2013, 2010, 2007).

662

663 The results of our interviews suggest that downscale pressures trumped bottom-up

664 transformations in urban adaptation governance. We find little evidence of cities and local

665 communities having increased autonomy in local adaptation governance decisions. However,

666 we found pockets of governance actions by some local stakeholders that took advantage of

667 the existing policy system, trying to work within pre-defined parameters of state policy

668 structures on adaptation. Here local trust (and, by implication, distrust) between political

669 scales and state territories was a constant theme that emerged in many interviews. For

670   example, interviewee 15 from Climate UK talked of seizing 'opportunity' and being

671   'pragmatic' by knowing how 'to talk to national politicians in a certain way to get what you

672   want' and 'developing trust to initiate change'. Another interviewee (12) was quick to point

673   out embedded issues of trust between different government agencies operating at different

674   scales:

675

676   *"At a local level there is a general distrust of LAs… they don't really know best.*

677   *There's a distrust of people like the EA… the way they generate decisions because*

678   *they are not right for that person living in one of those houses that hasn't been*

679   *prioritised by the EA who got flooded… I think flipping that the other way in terms of*

680   *power, LAs, there is an element of that in terms of what we can do, and we can't do,*

681   *engaging with communities… There's a lot of posturing going on and a lot of distrust*

682   *between the unitary authorities in between the LEP and the government there's an*

683   *element of distrust into the motives."*

684

685   So, if there *is* distrust within government, how would one expect more transformational

686   governance responses to climate adaptation to emerge through social contracts between state

687   and non-state governance actors, let alone reflexive, autonomous bottom-up responses from

688   local communities? Interviewee, who worked closely with local Scottish communities

689   reflected on this, viewing adaptation action as being congruent with having empathy with

690   different socially-situated contexts:

691

692   *"I think adaptation action is having empathy and understanding, the starting point*

693   *that people are important… acknowledging that we don't have all of the answers, so*

694   *actually we don't need more adaptation experts. We need people who are experts in*

695   *different sectors and fields to learn about adaptation and apply that knowledge in*

696   *their own sectors… that is really important. So, some of the really good work that has*

697   *happened through planning is because people from different organisations and areas*

698   *of expertise have come and really engaged on adaptation and then applied it in their*

699   *context in quite transformational ways."*

700

701 This suggests that ideas of transformation in local adaptation governance are enacted and

702 reconstituted in less obvious, but nevertheless, more reflexive and innovative ways within

703 state-led adaptation policy structures, but nevertheless in highly contradictory and often

704 contested ways across UK devolved territories. Trust plays a key role in establishing new

705 urban pathways to adaptation, but nevertheless such pathways are also interjected by the

706 discursive alignment of the 'urban' and the 'national' that emanate out of internationally

707 institutionalised mitigation policy discourses that control state internationalisation of climate

708 policy.

709

710 **V CONCLUSION**

711 Our argument in this paper is that the participation of cities in climate governance introduces

712 a complex scalar geopolitics shaping climate adaptation that is contingent on the type(s) of

713 knowledge networks and governance relationships operating at the international, national and

714 urban scales. Rather than cities being detached from nation states, cities and nation states

715 have become closely intertwined in climate governance processes. Sometimes, cities lobby

716 international climate networks such as the C40 and IPPC; at other times, nation states use

717 urban climate policy to negotiate with, and appease, their geopolitical competitors; on still

718 other occasions, climate policy is enrolled in efforts by the state to manage domestic political

719 problems, not least contested processes of devolution. As Dierwechter (2020, 399) argues,

"Cities, states and global environmental politics are 'co-shaping' each other, producing a

global variety of green (and other kinds of) geopolitics". How better to understand these

'green' geopolitical processes likely represents a major new research agenda in comparative

approaches to territory, politics and governance in the coming years.

The findings of this paper also bear upon the point that Dalby (2013a) makes in his analysis

of Kahn (Kahn, 2013) in that engendering a more effective climate change geopolitics is

about much more than the role of national states, even though such states hold

disproportionate amounts of power in shaping international climate geopolitics (Kythreotis,

2012). Rather, climate geopolitics should be about so much more than dominant mitigation

policy framings that straddle national and international scales. It is wholly a political issue of

how it is represented at other scales, too, especially the urban and regional scales and their

respective (devolved) state territories (Dalby, 2016). Viewing climate geopolitics through a

scalar lens refocuses how climate adaptation territorial governance responses might be more

successful. The urban and regional scales are where the nuts-and-bolts of climate governance

and policy are structurally (state-led policy) and/or reflexively (state and non-state

governance) played out. Hence, we argue that the climate adaptation territorial governance

debate should refocus its epistemological gaze on the links and interconnections between the

international, national and urban (city-region) scales as a means to reinforce the politics of

adaptation as a geopolitics of scale in which the future of cities is increasingly implicated.

In reinforcing the politics of adaptation as a geopolitics of scale, this paper has further

highlighted the nature of interconnections between otherwise missing scales of analysis in the

climate geopolitics debate: (i) the increasing discursive alignment of the 'urban' and the

'national' in international climate adaptation policy and decision-making processes; and (ii)

745   the contradictions between urban and national climate policy discourses across the UK

746   devolved territories. Through interviews with a range of adaptation stakeholders working

747   across the UK and its devolved territories of Scotland, Wales and England, we have shown

748   how some actors strategically used local deliberative processes as an 'opportunity space' for

749   governance, as framed by the IPCC (2014c, 29). Yet reconstitution of adaptation being

750   approached in more amorphous ways by our interviewees e.g. trust/distrust, pragmatism,

751   empathy, also highlights how the practical cross-cutting nature of climate governance – its

752   scalar geopolitics – poses problems for the institutional make-up and decision-making

753   processes of territorial governance, resulting in a lack of 'fit' between the nature of the

754   problem to be governed and the institutions undertaking that governance (Betsill and

755   Bulkeley, 2007; Lawrence et al., 2015).

756

757   All of this leads us to question the notion of whether the urban scale is at all autonomous in

758   governing appropriate (and transformational) climate adaptation responses. Rather, cities and,

759   increasingly, city-regions are part of a messy territorial governance system that at best,

760   provides a limited 'opportunity space' for quasi-autonomous intervention by certain actors

761   within pre-defined national state policy structures, e.g. the UK National Adaptation

762   Programme. We find that current adaptation governance processes operating at the urban

763   scale in a devolved UK state are more than simply an extension of the 'collective' national

764   politics that go on through the internationalisation of the state via the mitigation policy

765   imperative, although they are certainly deeply influenced by them as or interviews illustrate.

766   They also go to the heart of the problematic 'national' question operating within the devolved

767   UK state. These empirical findings suggest that the climate geopolitics debate needs to more

768   fully analyse and incorporate the contradictory nature of how adaptation knowledge is

769   mobilized at different scales of territorial climate governance in order to fully expose how

770   urban adaptation is fully played out as a more equitable and just geopolitics of scale.

771

779

780

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