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1

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3

4 **Abstract**

5 Managing climate and disaster risk is a deeply political act sitting at the interface of popular  
6 expectations, legal mandate and political fiat. This paper makes the case for an expanded research  
7 agenda on social contracts in climate and disasters scholarship as a mechanism to better reveal  
8 activity across this interface, identify the winners and losers of adaptation, and improve the equity  
9 outcomes of negotiated and imposed risk management settlements. Three distinct yet intersecting  
10 social contracts are identified: imagined, practiced, and legal-institutional. The paper argues that  
11 mapping the disjunctures, overlaps and transitions between these concurrent social contracts can  
12 help reveal gaps between responsibilities held *de facto* and *de jure*. This makes a timely contribution  
13 to understanding tensions between need, obligation and entitlement that underlie contestations  
14 over 'who' is responsible for 'what' in risk governance, and helps reveal the dynamic boundaries of  
15 social acceptances at the centre of debates around fair adaptation governance. Such work can  
16 provide insight on how development relations, including but reaching beyond risk management and  
17 climate change adaptation, can be transformed progressively and fairly in a changing climate.

18

19

## 20 INTRODUCTION

21 This paper argues that social contracts offer a rich lens for research on the politics and fairness of  
22 adaptation and its consequences. It is now well-established that the risks associated with climate  
23 change, and the effects of adaptive actions, have unequal social, spatial and temporal distributions.  
24 These inequities are mediated by and accentuate cultural and political differences (Norgaard 1988,  
25 Eriksen et al. 2011, Adger et al. 2012). Cultural norms and assumptions, legal frameworks and  
26 everyday practice constantly iterate in ways that produce and reflect dynamic but invariably  
27 asymmetric relations of power between development stakeholders and across scales. The same  
28 social-political relations through which power is exercised in development decision-making and  
29 action (interactions that might collectively be termed ‘development relations’), will also determine  
30 who carries the burden of impacts and the costs of absorbing losses, adapting or transforming in the  
31 face of escalating disaster risks (Pelling 2011). The social reproduction of power through adaptation  
32 policy and action, and the embedded questions of equity and representation this raises, are  
33 increasingly recognised as important to understanding shifting outcomes; yet to date the adaptation  
34 literature has fallen short of exploring the relevance of social theory lenses to this question (Fazey et  
35 al. 2017). This has implications for research and for policy framing, prioritisation and legitimacy.

36 In this paper we highlight the potential of social contracts as an emergent analytical lens on the  
37 politics of adaptation, and develop their conceptualisation in an adaptation context. We draw on  
38 Campbell’s (2010) definition of the social contract as recognition of the legitimising force of citizen  
39 consent to the authorities which limit their freedoms, and the reciprocal duty of social institutions to  
40 uphold the equal rights of all. However, we prefer the term ‘social contracts’ (multiple) over ‘the  
41 social contract’ (singular), in order to capture diversity and multiplicity in the form of those co-  
42 dependent relationships.

43 The particular contribution of a social contracts lens to questions of climate change adaptation and  
44 its consequences lies in: (i) highlighting tensions between need, obligation and entitlement that  
45 underlie contestations over ‘who’ is responsible for ‘what’ in risk governance; and (ii) drawing  
46 attention to boundaries of social acceptance surrounding risk and risk management actions, and  
47 hence to the conditions under which legitimate adaptation pathways are negotiated and contested.  
48 Such concerns lie at the centre of debates around fair adaptation and just risk governance. These  
49 contributions allow for a lens that can be extended across other policy domains and practices to  
50 approach the cultural and political trade-offs between risk and development that often transcend  
51 economic rationality. Note the focus in this article on climate-driven adaptation is not to limit the  
52 application of a social contracts lens, when contestations over fairness may apply equally to other  
53 forms of risk management (economic, social, political, technological, reputational). This focus stems  
54 rather from the particularly complex questions of socio-spatial and intergenerational equity that  
55 climate change raises, and its role as a risk amplifier (see Renn 2011).

56 To get at these dynamics, the paper first reviews the existing application of the social contract in  
57 adaptation and disaster risk management thinking. Challenges are then identified that have inhibited  
58 fuller deployment of social contracts to date: the assumed homogeneity, fixedness and consensual  
59 qualities of the social contract in classical contractarian theory. In response, a proposal is made for  
60 an analytical application that recasts the social contract into three intersecting yet distinct forms:  
61 social contracts that are *imagined*, *practiced*, and *legal-institutional*. The paper reflects on these

62 forms and the research agenda this opens onto human rights and responsibilities upheld *de facto*  
63 and *de jure*. The conclusion further clarifies the research and policy implications of a social contracts  
64 approach, namely to help identify and explain cultural and political tensions arising from climate  
65 change and natural hazard impacts, and the consequences of adaptation for sustainable  
66 development.

## 67 **ADAPTATION AS POLITICAL: THE (RE)EMERGENCE OF SOCIAL CONTRACTS**

68 It is widely recognised that the Anthropocene demands urgent critical reflection on the stability,  
69 equity and future of currently dominant development trajectories (Folke et al. 2002, Steffen et al.  
70 2011). Many now agree that transformational adaptations are necessary to achieve sustainable  
71 development (defined broadly to encompass social, ecological and economic equity across  
72 generations) (Eriksen et al. 2011, O'Brien 2012, O'Brien et al. 2015). However, amid the shifting  
73 goalposts of global environmental change, the roadmap toward those futures remains far from  
74 clear. Important questions remain, not only in clarifying precisely what adaptation futures are  
75 sought, but in defining what constitutes fair governance of those adaptive transitions (Pelling et al.  
76 2015). What level of risk is tolerable, what trade-offs between risk and development are acceptable,  
77 and – most importantly – who decides (Ziervogel et al. 2017)? Geographies of power and agency will  
78 ultimately determine the priorities that are embedded in adaptive pathways; hence addressing the  
79 above questions is of fundamental importance to defining precisely *whose* futures are protected and  
80 *how* costs are distributed. These are fundamentally political concerns with real-life implications,  
81 demanding heightened attention from critical scholarships.

82 The social contract has already emerged as a language to describe shifts in governing behaviours  
83 that are either necessary for, or act as a pathway of, transformational adaptation. The application in  
84 this literature has been heterodox, tending not to invoke classical contractarian theory and towards  
85 a symbolic rather than analytical application, used to demarcate a tension between differing  
86 communities of practice or epistemology. Lubchenco (1998) and Demeritt (2000) were early to  
87 invoke social contracts in sustainability research, observing an increasing pressure on environmental  
88 scientists to produce work with demonstrable societal value (what they call a 'new social contract  
89 for science' with society). DeFries et al. (2012), Castree et al. (2014) and Castree (2016) have  
90 transposed this into calls for action on global environmental change, arguing for more plural, action-  
91 oriented scholarship that pays due attention to social science and humanities alongside physical  
92 sciences. Others in the policy and business sphere have invoked the social contract as an argument  
93 for altered and/or strengthened accountability chains in environmental management and regulation  
94 (Miliband 2006, Zadek 2006, White 2007).

95 Alongside this, the language of the social contract has entered adaptation, disasters and  
96 development literatures as a broad analytical lens. Current applications invoke the social contract to  
97 highlight inequalities resulting from specific development failures which underlie unequal  
98 geographies of disaster risk reduction (Mitra et al. 2017) impact and recovery (Pelling and Dill 2010),  
99 as a mechanism for adaptation (O'Brien et al. 2009, Adger et al. 2012), evolving state-society  
100 relations in post-disaster settings (Siddiqi 2013, Blackburn 2018), and as the building block for more  
101 accountable development pathways (Hickey and King 2016). The social contract has been used to  
102 articulate those conditions causing risk governance to be seen as illegitimate or unacceptable

103 (Pelling 2011, Christoplos et al. 2017), and to help conceptualise and visualise what fairer  
104 governance might look like in the future (O'Brien et al. 2009).

105 Such literature does important work by situating adaptation centrally as a governance and  
106 development concern. It raises important questions about the opportunities offered by the  
107 renegotiation of the social contract across multiple relationships as a mechanism for improved  
108 governance. This is part of a movement in the literature towards inviting critical reflection on what  
109 type of adaptation we need (or want), and the deeply political challenge of how we might get there.  
110 However, to date this literature remains vague about the precise definition of the social contract  
111 adopted, and tends to invoke it as a metaphor to describe the distribution of rights and  
112 responsibilities and/or citizen expectations of the state. This paper argues that whilst existing  
113 literature does well to draw attention to the centrality of governance and state-society relations as a  
114 limiting factor to adaptation and resilience, social contracts can be made to work harder as an  
115 analytical frame.

## 116 **WHAT MORE CAN SOCIAL CONTRACTS OFFER?**

117 Those working with the social contract have tried hard to balance received classical contractarian  
118 ideas with the empirical observation and contemporary interpretations of risk governance and its  
119 social context. Two logical problems arise from attempting an application of received theory in this  
120 way. These constraints are discussed in this section and stem from classical contractarian theory's  
121 starting point that a single social contract exists in the polity, and that this is controlled by individuals  
122 who collectively hold power over their (legitimate) ruler. Neither position is readily observable; but  
123 we argue a social contract lens does not need to *assume* the existence of a singular hold nor its  
124 direction of authority. Rather than attempting to find *the* social contract (as described by  
125 contractarian theory) in contemporary contexts, we argue for using this theory as a starting point to  
126 problematise development relations, and as a common meta-theory for the synthesis and  
127 communication for questions about representation, leverage, empowerment, risk perception and  
128 citizen agency. The following two received constraints on contractarian logic, and the implications of  
129 moving beyond them from a social contract to a social contracts lens, are outlined below.

130 First is classical contractarianism's singular concern with the social contract between a sovereign  
131 ruler and the people over whom they rule (see Lessnoff 1990, Boucher and Kelly 1994, Morris 1999,  
132 Campbell 2010). This excludes other, asymmetric power relations: the family, household, workplace,  
133 community, etc. Particularly given the ever-more powerful global forces of neoliberalism that  
134 challenge and reform the role of the state, alongside the near-ubiquitous resilience discourse which  
135 emphasises local capacities for adaptation, governing for adaptation demands an urgent rethinking  
136 of the governance structures, lines of accountability and power relations that will define how and in  
137 whose interest adaptation occurs (O'Brien et al. 2009). Intergovernmental agreements such as the  
138 Paris Agreement and UN Sendai Framework for Disaster Risk Reduction (DRR) set out ambitious  
139 targets for cross-sector, multilateral cooperation and embedded national policies on climate  
140 adaptation and DRR – yet these continue to be undermined by what Pearson and Pelling term the  
141 “awkward politicization of intergovernmental negotiations” (2015, pp.2).

142 In an increasingly complex governance landscape, new trade-offs, compromises and arrangements  
143 are inevitable. Understanding what sorts of protections individuals expect to receive from state and  
144 non-state actors in a warming world, and the consequences for polities when these are not met, is

145 an increasingly urgent issue, and one that may challenge current conceptions of citizenship and just  
146 governance. Social contracts describe the distribution of rights and responsibilities between parties,  
147 and thus provide a lens on conditions where previously assumed or stable geographies of right and  
148 responsibility can be visualised and questioned by researchers and policy actors alike. This has  
149 practical and policy value in the sense it is difficult to design/pre-empt more progressive governance  
150 landscapes without full understanding of how current ones stand and evolve. This connects to  
151 concerns with geographies of blame, accountability and responsibility in risk governance (Bulkeley  
152 2001, Butler and Pidgeon 2011), by drawing attention to implications of institutional arrangements  
153 on democratic legitimacy and accountability. Social contracts add particular richness by placing  
154 greater emphasis on boundaries of social acceptability and perceived fairness (as called for by  
155 Paavola and Adger 2006, Adger et al. 2009).

156 The second constraint is classical theory's proposition that the social contract is an outcome of  
157 collective societal acquiescence or consent, which implies a comfortable exchange of rights and  
158 responsibility (in particular, Rousseau 1762 [1987]). Contractarian theory is primarily interested in  
159 the shape of this relationship, rather than the mechanisms through which it is produced and the  
160 potential of the use of force to establish, maintain or resist, subvert or overthrow relationships  
161 culminating in (the) social contract(s). Many classical theorists including John Locke (amongst the  
162 famous of contractarian philosophers) argued that where the legitimacy of the state is lost, then  
163 citizen resistance is justified (Lessnoff 1990); we argue this aspect has been under-utilised  
164 analytically. In a disaster context, a social contract lens can emphasise the gap between formal civic  
165 rights or protections and on-the-ground realities of mutually constituted poverty and hazard  
166 vulnerability (Pelling 2011). By drawing attention to instances where states fail to protect basic  
167 human rights (to life, to security, to essential services) – for example through unacceptably slow  
168 response or exclusionary geographies of relief/rehabilitation which magnify pre-existing  
169 inadequacies or inequities in service provision – a social contract framing highlights the capacity for  
170 extreme events to reveal development and governance failures (what Pelling (2011, pp.95) describes  
171 as a “break” in the social contract; also Pelling and Dill 2010). Social contracts provide a powerful  
172 lens for understanding crises of state legitimacy, and the ways in which these are captured (or not)  
173 by political and social actors as a moment for social-institutional change – highly pertinent to the  
174 burgeoning literature on transformation. This lens could be applied in post-disaster settings as well  
175 as to understand rationales of complicity or resistance to particular adaptation (or maladaptive)  
176 policies and practices.

## 177 **MOVING FORWARD: MULTIPLE RISK SOCIAL CONTRACTS**

178 The above discussion demonstrates that, despite the constraints imposed by classical contractarian  
179 logic, certain principles of classical social contract thinking are strongly resonant for adaptation  
180 scholarship. We propose a framework which helps move beyond the conceptual challenges above in  
181 three ways.

182 First, we argue that the idea of social contracts need not necessarily be confined solely to state and  
183 society, inspired by Boucher and Kelly who challenge the assumption “that there is a single unified  
184 tradition or a single model or definition of the contract” (1994, pp.1). In light of the need to  
185 recognise non-state actors as governance players (as called for by White 2007), we advocate a view  
186 of *multiple* social contracts in the plural (as opposed to *the* social contract, singular), between

187 individual(s), organisations, collectives or institutions either in- or outside the state infrastructure. At  
188 a sub-societal level this includes intra/inter familial and community relationships of co-dependency,  
189 which may or may not reflect meso- and macro scale power relations within society at large.

190 Second, by emphasising mechanisms through which social contracts are (re)produced or contested  
191 (rather than taking their existence for granted), we argue a social contracts lens can draw attention  
192 to the multiple, ongoing, everyday scalar politics through which power is centralised, distorted, or  
193 otherwise stripped from the local in ways that undermine community resilience. This is facilitated by  
194 an acceptance of the multiple pathways through which social contracts are established, and their  
195 multiple social construction. For example, governments may claim to have decentralised decision-  
196 making and implementation plans, when in reality local agency is constrained by a lack of  
197 institutional support (Allen 2006) or weak channels of cross-scale communication, trust and  
198 representation that isolate local communities from spaces of decision-making (Blackburn 2014). A  
199 social contracts approach offers a pertinent framing to such challenges, since it is fundamentally  
200 concerned with politics of relative power and agency between stakeholders, both at and between  
201 scales. Its pertinence stems from the inherently scaled nature of risk and vulnerability; vulnerability  
202 stems from action (and inaction) at multiple scales, and both responding to crises as well as reducing  
203 risk meaningfully in the long term demands collaborative, complementary actions across and  
204 between all scales.

205 Third, responding to the constraint of classical contractarianism conceiving a social contract as  
206 inherently reciprocal, we propose drawing a separation between three intersecting yet  
207 differentiated social contracts: legal-institutional, imagined, and practiced. These represent three  
208 distinct realms in which rights and responsibilities are held in tension, which exist concurrently and  
209 may or may not overlap. Social contract analysis might either focus on one realm only, or on the  
210 relationships between them. Each form of social contract is explained below:

### 211 **Legal-institutional social contract (LSC)**

212 The LSC exists in the formal, legally sanctioned distribution of rights and obligations between  
213 societal actors, which is defined by and through legal and constitutional frameworks –  
214 whether or not this distribution is deemed fair by the individuals it governs. The LSC may be  
215 fixed over multiple generations but can also evolve quickly, and is a product of dominant  
216 institutionalised cultures, values and social relations; it is not inherent but constructed. As  
217 Angel and Loftus argue, the state (and its instruments) are not a “coherent thing” but rather  
218 a “form emerging out of a contradictory set of social relations and a process of struggle”  
219 (2017, pp.3).

### 220 **Imagined social contract (ISC)**

221 The ISC constitutes individuals’ own subjective vision of a just social order, which may or  
222 may not be reflected in policy or practice. It is imagined rather than material (although it  
223 likely informs, and is informed by, material struggles), and could be either perceptive (‘this is  
224 what I believe it to be’), expectant (‘this is how it should be’) or hopeful (‘this is how I wish it  
225 would be’). This social contract relates closely to Rousseau’s assertion that the legitimacy of  
226 an authority is defined by those over whom it rules (1762 [1987]). Being sensitive to social  
227 relations, personal and collective history and culture, ISCs may associate in communities of

228 shared experience or belief, but are also inevitably differentiated (between individuals,  
229 locales, social groups) and fluid over a lifetime. The ISC is independent of the law (although  
230 again, is likely influenced by it), the latter of which exists either in a state of compliance or  
231 breach of the fluid, heterogeneous ISC. The key challenge for the ISC, both theoretically and  
232 methodologically, is the diversity of societal values which exist within a single citizenry and,  
233 due to this subjectivity, the likely impossibility of unanimous agreement.

#### 234 **Practiced social contract (PSC)**

235 Whilst the ISC is imagined, the extent to which it is reflected in practice is material. The  
236 practiced social contract (PSC) is the ‘real-life’ balance of rights and responsibilities which  
237 are performed and claimed by individuals and state actors, and is observable in the everyday  
238 state-citizen and citizen-citizen relations. This is the social contract that is most frequently  
239 discussed in current literature – exemplified in Pelling’s definition of the social contract as  
240 “the prevailing balance of rights and responsibilities in society and may be held in place by  
241 legitimate government or the rule of force” (2011, pp.172). The PSC is the product of  
242 negotiation between multiple conflicting ISCs (which co-exist in society) and the LSC, and  
243 may sit closer to one, both or neither.

244 Analysing the disjunctures, overlaps and transitions between these social contracts offers a research  
245 frontier in its own right, but also an organising framework for burgeoning research on the political  
246 and justice implications and contexts for climate change adaptation and disaster risk management  
247 research and practice. The relative closeness between contracts from different stakeholders  
248 perspectives (and how this changes over time) could indicate the degree to which climate change  
249 adaptation policy reflects, justifies or challenges dominant public priorities, experiences and  
250 expectations, bringing climate change research into broader debates on the social acceptability of  
251 government in practice. This is a core requirement for research and practice that recognises the  
252 need for transformation in moving toward sustainable and just futures. In a perfect democracy, the  
253 Imagined Social Contract would shape the Practiced Social Contract and Legal-institutional Social  
254 Contract in its image through democratic channels. More likely, however, is a Practiced Social  
255 Contract which reflects inequities of power and influence within society, since the most powerful are  
256 best able to shape social relations in their favour. Gaps between Imagined, Practiced and Legal-  
257 institutional social contracts may arise where inherited constitutional arrangements are (or become)  
258 inappropriate to local history and culture – observed, for example, in many post-colonial contexts.  
259 Furthermore, even within a single legal jurisdiction, each of these social contracts – and the gaps  
260 experienced between them – will not be the same for all people. Differences may exist, for example,  
261 between recognised citizens and illegal migrants, or between majority and minority groups.

262 The closeness between Practiced and Legal-institutional Social Contracts will also be a product of the  
263 strength and culture of enforcement, and may vary across scales. For example, there may be a  
264 disjuncture between the formal Legal-institutional Social Contract because of corruption, which  
265 stipulates that corruption is illegal, and the Practiced Social Contract at the local scale, where  
266 corruption is locally accepted as a legitimate pathway for resource access. This is perhaps more likely  
267 to occur where the state is absent or perceived to be acting against the will of the citizenry. The  
268 distance between social values and existing legal-institutional settings has previously been explored  
269 by Pelling and Manuel-Navarrete (2011) as a possible indicator of impending transformation.



270 In addition to the differentiation of the three social contract forms, the reframing of social contracts  
271 as *multiple* (i.e. between multiple social actors and groups) marks a shift from a focus on *the* social  
272 contract to a social contract framework that can take account of non-state organisations  
273 (particularly NGOs and private organisations, both domestic and international), who increasingly  
274 deliver essential services historically provided by the state (including water, sanitation, energy), but  
275 sit outside the state infrastructure. This new geography of service provision skews public perceptions  
276 about the appropriate distribution of rights and responsibilities (White 2007). Questions include how  
277 respective responsibilities and obligations are negotiated between these actors, their impact on our  
278 conception of the social contract (are we witnessing the emergence of multi-party social contracts?)  
279 and to what extent and how accountability is ensured.

## 280 **EVOLVING SOCIAL CONTRACTS: A RESEARCH AGENDA**

281 The framework introduced above opens four specific research avenues, detailed below.

282 First, it offers a methodology to map **current or projected allocations of responsibility and rights** in  
283 adaptation governance, decision-making and action, and through this to highlight power/agency  
284 vacuums and areas of overlap and contestation. Such a project could be used in the policy sphere to  
285 focus resources and negotiation time on ensuring protective mechanisms for at-risk groups or  
286 sectors. It could also reveal mismatches between policy and practice – for example, to reveal the  
287 efficacy of decentralised governance frameworks, one might find that more and more risk  
288 management responsibilities are delegated to citizens (shifts in the Legal-institutional Social  
289 Contract), yet lack of movement in citizens’ capacities to enact those responsibilities (a static  
290 Practiced Social Contract) might only be revealed by a disaster event.

291 Second, mapping social contracts could shed light on **pathways of transition or acts of**  
292 **transformation**, by exploring the contextual events/factors which contour, stimulate or reflect their  
293 evolution, and paying attention to which specific social contracts evolve in response to what.  
294 Methods could include historical root cause analysis or qualitative field research into post-disaster  
295 recovery. One might find, for example, that the Legal Social Contract can act either as a constraint  
296 to, benchmark of, or a stimulus for change. By analysing shifts over time, the framework could reveal  
297 the speed as well as direction of movement between the Imagined, Practiced and Legal Social  
298 Contracts, for example whether gaps/overlaps emerge in a creeping or sudden way. This has  
299 implications for those seeking to manage social change processes unfolding with climate change  
300 impacts and adaptation consequences.

301 Third, the relative closeness of the Practiced and Imagined Social Contract could indicate the  
302 **capacity for citizen-led action to leverage local priorities for adaptation**. Imagined social contracts  
303 describe boundaries of social acceptance, expectations and felt entitlements, and can thus help  
304 understand locally-specific logics of resistance, moments where new (or newly articulated) rights  
305 claims emerge, and the role of risk in crystallising those claims, either in calls for or in response to  
306 particular adaptive strategies. Conversely, gaps between Legal-institutional and Imagined Social  
307 Contracts could also point to complacent citizenship, for example denial or failure to claim rights  
308 (which may equally be due to passive dependency or political apathy, or to active political  
309 suppression or lack of visibility of rights). Through a clearer understanding of citizens’ own perceived  
310 and enacted agency (within the Imagined and Practiced Social Contracts), this could help explain  
311 why state failures and/or crises of legitimacy get captured politically (or not), and the role of risk in

312 driving a migration of previously-stable expectations, including the Imagined Social Contract – with  
313 implications for understanding post-disaster settings as transformative moments, building on Pelling  
314 and Dill (2010).

315 Fourth, mapping Imagined Social Contracts could reveal **social and cultural limits to adaptation**. This  
316 includes investigating different stakeholders’ subjective conceptions of tolerable loss and damage, to  
317 identify boundaries of social acceptance within the Imagined Social Contract – a pursuit of critical  
318 importance in designing fair and liveable adaptive policies. Alongside, attention must be paid to the  
319 Practiced Social Contract as it relates to adaptation stakeholders’ relative power and agency over  
320 others. Revealing stakeholders’ subjective priorities, in combination with political-economic analysis  
321 of social reproduction, could reveal whose values are more or less likely to become embedded in  
322 adaptive pathways. Such work is of critical importance in identifying the projected (and existing)  
323 winners and losers of adaptation activity, with a view to improve the equity outcomes of negotiated  
324 and imposed risk management settlements.

## 325 **CONCLUSION**

326 This paper has highlighted the potential of a social contracts lens to address complex questions  
327 around the politics of adaptation. It has defined social contracts as fluid, multiple and political  
328 constructs, that are shaped concurrently by the expectations and aspirations of the citizenry, the  
329 degree and means of fulfilment of those expectations, and the conditions for the legitimacy of  
330 formal security provisions. As an analytical framework, social contracts bring questions around  
331 responsibility and entitlement for citizen security to the fore, inviting interrogation of the social  
332 processes reproducing uneven geographies of vulnerability and exposure, critical reflection on the  
333 norms and expectations dictating ‘who’ is responsible for ‘what’ in risk governance, and the  
334 conditions under which the legitimacy and practice of current ways-of-governing are challenged and  
335 renegotiated. Understanding convergences and disjunctures between legal-institutional, practiced  
336 and imagined social contracts offers a timely lens for unpacking how blame and perceived  
337 responsibility for adaptation are constructed and contested, and how more legitimate, fair or  
338 otherwise socially progressive governance landscapes are defined or negotiated.

339 These emphases open important analytical space, responding to mounting evidence that the  
340 possibilities, mechanics and limits of adaptation are as much social, political and cultural as they are  
341 technical. It responds to the need – both academic and pragmatic – for a framework that  
342 emphasises how (and with what implications) rights and responsibilities for adaptation are  
343 negotiated, and invites creative responses to this challenge across disciplinary divides (geography,  
344 philosophy, politics, and beyond).

345 However, more than analytical space, a social contracts lens also open reflective space for the  
346 contemplation of adaptation as a normative challenge. In a warming world beset by deep and  
347 growing social inequality and ecological crisis, it is insufficient for disaster risk reduction and  
348 adaptation to focus narrowly on small-scale, incremental or localised improvements to  
349 infrastructures, livelihoods and emergency-response in isolation from mainstream development  
350 concerns. Doing so makes adaptation unable to address the underlying and systemic root causes of  
351 risk – including structural inequality, poverty and social exclusion (Pelling 2011). Business-as-usual  
352 development – and business-as-usual governance of development – is no longer tenable, and rather  
353 than viewing either disaster risk reduction, adaptation or development in isolation, action is needed

354 at what Solecki et al. (2017) term the adaptation-development nexus. This is essential to meeting  
355 the Sustainable Development Goals' ambitious targets for climate action at the same time as  
356 building just, peaceful and inclusive societies (UN 2018).

357 Transitioning toward sustainable development is undoubtedly a wicked problem. This paper sets out  
358 a specific response: one that contributes to the visioning and analysis of social navigation across the  
359 ever-more complex terrain of adaptation governance.

360

361

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369

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487

488 **Graphical/Visual Abstract and Caption**

489 N/A

490 **Figures and Tables**

491 N/A

492 **Sidebar title:**

493 N/A

494 **Notes**

495 N/A

496 **Further Reading**

497 N/A