REGULAR PAPER





Addressing power and scale in resilience programming: A call to engage across funding, delivery and evaluation

¹Grantham Research Institute for Climate Change and the Environment, London School of Economics and Political Science, London, UK

²School of Public Policy and Urban Affairs and International Affairs Program, Northeastern University, Boston, Massachusetts, USA

³Global Resilience Partnership, Stockholm, Sweden

Correspondence

Lindsey Jones Email: 1.jones3@lse.ac.uk Resilience has recently emerged as a conceptual and operational buzzword spanning every facet of the international development agenda. The rise of resilience provides renewed opportunities for geographers to critically engage with the policy sphere and shape ongoing discourse over the nature of resilience programming. Yet, while aspects of the political economy of resilience have long been acknowledged in both academic and practitioner literatures, scholarly inputs have had limited influence in addressing issues of power and scale as applied directly to resilience programming. In this commentary, we argue that enhanced uptake of geographic enquiry is contingent on geographers being more proactive in engaging with resilience practitioners. One way of doing so is to tailor scholarly inputs to three critical elements of the programmatic cycle, namely how resilience-building activities are funded, delivered, and evaluated. Using these three facets, we highlight key practical and ethical considerations worthy of further geographic enquiry – focusing on issues of power and scale as concepts at the heart of geography.

KEYWORDS

climate change, ethics, finance, resilience

1 | INTRODUCTION

Over the past two decades resilience has risen from relative academic obscurity to the driving force behind headline political commitments. Inclusion in the United Nations Sustainable Development Goals (UN SDGs), notably its flagship entity on poverty eradication (Goal 1 Target 1.5, as well as Goals 11.b, 13.1 and 14.2), attests to resilience's dramatic rise (Tanner, et al. 2017). This momentum provides renewed opportunities for geographers to critically engage with the policy sphere and help shape ongoing discourse over the nature of resilience programming (Cutter, 2016). Indeed, aspects relevant to geographic enquiry can be found across the spectrum of programmatic activities.

As Weichselgartner and Kelman (2015) argue, the importance of understanding "resilience of what, to what at what scales" makes resilience programming particularly well suited to geographic analysis (pg. 252). For example, the rapid growth in political appetite towards resilience has led to a spike in the availability of funding. Of the 22 adaptation and cross-cutting projects funded by the Green Climate Fund (GCF) in 2019, 11 included the word resilience in the project title (GCF, 2020). Growth in finance and influence inevitably brings with it important considerations of power and scale. This can be easily seen in examples of donor leverage in deciding adaptation mandates in countries like Nepal and Tanzania, pitting national-level and international priorities against local-level inputs (Nightingale, 2017; Omukuti, 2020).

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

The information, practices and views in this article are those of the author(s) and do not necessarily reflect the opinion of the Royal Geographical Society (with IBG).

© 2020 The Authors. *The Geographical Journal* published by John Wiley & Sons Ltd on behalf of Royal Geographical Society (with the Institute of British Geographers)

While aspects of the political economy of resilience have been acknowledged in both academic and practitioner literatures, scholarly inputs have had limited influence in addressing issues of scale and power as applied directly to resilience programming – and tackling the ethical challenges that ensue (Matyas & Pelling, 2015; Ruszczyk, 2019). To promote better uptake of geographic enquiry in the operationalisation of resilience-building interventions, we argue that geographers must be more proactive in engaging directly with resilience practitioners. One way of doing so is to tailor scholarly inputs to critical elements of the programmatic cycle – from funding through to implementation and evaluation. Who decides where finances for resilience are allocated? What do resilience-building programmes look like in practice? How should resilience programmes be evaluated? All too often these questions remain the preserve of a small number of decision makers, with little room for deliberation (especially with beneficiaries). In turn, they affect core aspects of procedural and distributional equity as related to resilience programming. Geography's long history of critical perspectives is urgently needed to ensure that the political momentum surrounding resilience programming translates into meaningful improvements for the most vulnerable.

In this commentary, we highlight key considerations for resilience programming that we believe geographers should be paying more attention to: some of which are common to other development approaches, others are unique to the resilience frame. We do so by considering issues of scale and power, concepts at the heart of geography. These are applied as lenses in examining three important steps along the programmatic cycle: how resilience is funded, delivered, and evaluated. Each offers important opportunities for scholars to pause and reconsider whether current operational activities are best serving the people and communities most in need of resilience-building, and how the geography community can actively contribute to enhancing impact. While our call for renewed emphasis on power and scale is certainly not unique, we strongly believe that the message needs re-emphasising and re-framing in applicable ways that relate directly to resilience practitioners by referring to three key stages of operational programming. As a result, we do not intend to provide a comprehensive overview of how power and scale apply to all aspects of resilience funding, implementation and evaluation. Instead, we seek to highlight key practical and ethical considerations worthy of further geographic enquiry using the three components of our analytical lens. More importantly, we use this article to urge geographers to engage more overtly with resilience as an object of research, and resilience programmes as sites of research.

2 | FUNDING

Over the past decade, the growth of financial pledges towards resilience-building amongst development and humanitarian funders has been staggering (Keating & Hanger-Kopp, 2020). Surveying only 10 large funds focused on resilience we estimate a total of over US\$6 billion being spent on resilience and adaptation-related activities. Part of this rise stems from its attachment to climate adaptation as a global policy priority. However, resilience finance is significantly broader than adaptation finance, and the observed growth reflects broader shifts across development, humanitarian, and environmental programming.

The size of funding alone raises important questions of scale and power. Resilience's popularity as a buzzword means that it is often used neutrally or apolitically, presented as a normative good, and is thus easily incorporated into funding proposals. Yet, as geographers have long argued, resilience is highly political, and the term has numerous potential meanings (Carr, 2019; Mikulewicz, 2019; Wilson, 2018). Indeed, the ambiguous nature of resilience can obfuscate the ethical dynamics at play in resilience funding and programming (Brown, 2015). For example, in GCF adaptation or cross-cutting (mitigation and adaptation) projects funded in 2019, the term resilience (or "resilient"/"resiliency") was used on average 127 times per proposal. These proposals reveal the many different ways the term can be conceptualised, particularly in terms of "what" is resilient, and consequently what approaches may help to build resilience. For example, in one GCF proposal resilience concurrently refers to (1) value chains, (2) agricultural production methods, (3) smallholder farmers, (4) infrastructure including roads and markets, and (5) household and business assets. Yet, the resilience of farmers may mean something vastly different from the resilience of infrastructure, requiring greater clarity before the term can be meaningfully employed (Béné, 2013; Béné, et al. 2012; Tanner et al., 2015).

This somewhat indiscriminate use of resilience as a concept creates several challenges. One issue is that, to some, resilience relates to aspects of stability, and for others, to transformation; both of which can be programme goals (Pelling, 2010; Wilson, 2018). Transformation is often defined as people and systems not just persisting or adapting, but reinventing themselves with new relationships, modes of organisation, and networks (Feola, 2015; Kates et al. 2012; O'Brien, 2012). Yet, unless there is clarity on which of these visions of resilience are implied, the use of the term can blur the political priorities behind a resilience goal. Indeed, it is important for decision makers to not only consider *what* to make or keep resilient, but *whose* resilience is prioritised, as the spatial and temporal variability in resilience can lead to inequality of outcomes

(Atteridge & Remling, 2018; Béné et al., 2017; Cutter, 2016; McEvoy, Fünfgeld, & Bosomworth, 2013). Geography's attention to power dynamics can help to reveal the "hidden agendas" that may exist in resilience programming. Because social systems are inherently political, decisions around what to maintain and what to change reflect individual and group values (Carr, 2019; Eriksen et al. 2015; Pelling et al. 2014; Smith & Stirling, 2010). There may be serious risks for vulnerable people from resilient power structures that control the status-quo. Some socially undesirable properties can be resilient – or desirable only for certain individuals and groups. For example, caste systems are a highly resilient social structure, desirable for those that they privilege (Fox, 1967), though few, if any, resilience-building programmes would seek to reinforce or increase the resilience of caste systems.

Resilience programming may be complicit in reinforcing these power structures and maintaining the status quo if the goals and objectives reflect the visions of resilience of those in power and not the most vulnerable (Jordan, 2019). Donor support to autocratic systems of governance, even when that government is promoting resilience, can reinforce these larger systems that maintain communities and individuals in situations of vulnerability (Coyne & Ryan, 2009). As such, there can be tensions between the extent to which resilience efforts reinforce existing power structures, or address the need for change or transformation in society, with different actors' preferences for stability or change highly correlated with their positions of power and influence within society (Blythe et al., 2018; Carr, 2019; Feola, 2015; Kasdan et al. 2020; Matyas & Pelling, 2015). While geography has contributed to important debates around definitions and aspects of the political economy of resilience, we do not believe that geographic insights have sufficiently influenced the allocation of resilience funding itself. Identifying how the contested nature of resilience influences the allocation of funding, how power dynamics (including the influence and relationship between funders, implementer and recipients) shape resilience funding directions, and who receives scarce resources are all areas where geography can contribute meaningfully.

3 | DELIVERY

Who designs resilience programmes, and how they are delivered and funded have profound implications for the people that receive it. Resilience investments, like many large scale development investments, are often driven by top-down political processes with decisions made primarily by men in international organisations in developed countries (Charlesworth, 2005). The people living where investments are made often have limited voice in the direction, timing, or application of funding (Conway & Mustelin, 2014). This may partially reflect why large resilience-related investments do not necessarily correlate with national-level hazard risk (Barrett, 2014), or local level priorities. Not only does this imbalance apply to a funder's choice of which organisations should be responsible for delivery and allocation of resilience-building activities, but also to the deliberative processes that occur within implementing agencies once awarded. Issues of representation across genders, cultures, and socio-economic backgrounds are especially important to consider, notably across spatial scales as Fisher (2015) explores in the context of the caste system in India. Indeed, issues of scale are especially important to reflect as the characteristics of resilience can be different (even contradictory) across spatial, temporal, and social scales (Cumming et al. 2017; Frazier et al. 2013). Mikulewicz (2020) points to examples of "imagined geographies" of vulnerability produced by development actors used to exclude local actors from engaging in local adaptation governance and reinforcing scalar boundaries.

Participatory processes and polycentric governance arrangements are intended to help ensure that the needs of diverse sets of stakeholders – particularly the most vulnerable – are heard and represented. In their review of the wider resilience literature, Matin, Forrester, and Ensor (2018) find that "equitable resilience" is increasingly likely when resilience practice takes into account issues of social vulnerability and differential access to power, knowledge, and resources. Yet, scholars acknowledge that ensuring meaningful participation can be challenging, as elites often capture the stakeholder engagement process (Few, et al. 2007; Omukuti, 2020; Sherman & Ford, 2014), and development has long struggled with meaningful participation (Cooke & Kothari, 2001; Mosse & Lewis, 2005). An analysis of the resilience plans of cities participating in the 100 Resilient Cities initiative finds a much stronger focus on the distributional aspects of equity and less on the recognitional or procedural aspects of equity, suggesting considerable room for further improvement in participatory processes of international resilience programmes (Meerow, et al. 2019). This is particularly difficult given the ambiguity of the many objectives of resilience, providing ample space for varied interpretations and potential co-option of resilience projects. Aligning resilience projects with national plans is another mechanism to address ownership, but the adequacy of this approach is predicated on the inclusiveness of national plans.

Another challenge is that resilience programming can involve trade-offs necessitating choices of whose resilience to promote and prioritise. For one, as scholars have raised, there may be trade-offs between resilience of the system as a whole and resilience of individuals. For example, when considering sea level rise, at the system level the most resilient strategy

may be to relocate communities, but at the individual level this may lead to increased vulnerability due to displacement (Adger, et al. 2005; Neumann et al. 2015). Within the same GCF proposals discussed above, objectives related to building system resilience, for example of the electricity system or the agricultural value chain, and individual or community resilience were included, without reflecting on the potential tensions between these priorities. Scholars have also pointed to trade-offs in timescales that can arise. While promoting high-yielding agricultural crops may reduce poverty and increase food security in the short term (although it may also increase risks, leading to unclear resilience outcomes), in certain areas agricultural livelihoods may be untenable in the long term and strategies to promote agriculture could be maladaptive (Barnett & O'Neill, 2010; Dow et al., 2013; Kuhl, 2018).

A third challenge raised by scholars is that the term resilience can become synonymous with self-reliance, transferring responsibility for resilience to vulnerable communities and individuals (Chandler & Reid, 2016; Grove, 2014; Joseph, 2013; Rhinard & Sundelius, 2010; Welsh, 2014). While proponents argue that resilience approaches differ from vulnerability approaches by focusing on human agency, Grove (2014) argues that resilience programming in practice places responsibility on individuals to be resilient, unlike political ecology analyses that recognise the structural constraints people face. Evans and Reid (2013) argue the dangers of "building resilient subjects" that have accepted the responsibility to adapt to a dangerous world, rather than addressing the structural reasons for their insecurity. This has the potential to redistribute vulnerability and lead to maladaptation (Atteridge & Remling, 2018). It is therefore critical to consider who bears the burden for being resilient, and what role resilience narratives may play in legitimising inadequate responses by the State or others responsible for providing services (Blythe et al., 2018; Chandler & Reid, 2016; Matyas & Pelling, 2015). Although community resilience is often a target of resilience programming, Zebrowski and Sage (2017) provide a critical analysis of "community resilience," arguing that resilience is presented as a solution to a heterogeneous range of community problems ranging from crime to bullying, climate change, and terrorism, but these solutions tap into imagined "nostalgia" and rely on the construction of community to shape social relations in support of neoliberal ideals. While building individual and community resilience is a critical goal for resilience programming, assessing whether projects/programmes are shifting responsibility to the most vulnerable is essential.

Finally, it is important to consider the context within which much resilience programming occurs. Resilience programmes are often implemented in particularly challenging contexts, creating unique dangers that can violate ethical standards or norms for development (Gaillard & Peek, 2019). One challenge is the urgency of humanitarian and disaster response contexts, in which responding rapidly with incomplete information must be balanced with robust, participatory processes. In these environments, there is a higher risk that resilience efforts may reflect the visions of elites that are easier to access because of the perceived lack of time for deliberative processes (Choudhury & Haque, 2016; Imperiale & Vanclay, 2020). There can also be pressure to reinforce the status quo, restore systems, or "rebound" in order to regain functionality as quickly as possible, without necessarily addressing underlying vulnerabilities, or emphasising only proximate causes of vulnerability (Sou, 2019). As scandals of fund misappropriation during the 2010 earthquake in Haiti highlight, disasters can also provide opportunities for unethical behaviour, particularly as large amounts of money quickly become available and must be spent (Gaillard & Peek, 2019; Schuller, 2012). At the same time, increasing efforts to focus on "building back better" seek to address this challenge and ensure that conditions that lead to vulnerability are not recreated (Kennedy et al.2008). Coupling the ethical challenges inherent under these conditions with the issues associated with the ambiguous meaning of resilience can amplify the challenges discussed above, necessitating particular attention to the motivations behind resilience programming priorities.

4 | EVALUATION

With considerable amounts of international finance flowing into resilience-related initiatives, funders are increasingly keen to focus on monitoring and evaluation (M&E). Doing so is key to assessing the effectiveness of their investments and ensuring adequate value for money (Schipper & Langston, 2015). Yet, a number of conceptual and methodological hurdles make evaluation of resilience-building interventions especially challenging.

For a start, while many headline terms applied across the development-humanitarian-environment nexus are ill-defined, the nebulousness of resilience remains peerless. Much of the conceptual ambiguity stems from its evolution and application across a range of fields – from engineering and ecology, to its more recent adoption in the social sciences (Alexander, 2013). A lack of a clear and concise definition has meant that myriad frameworks and indicator-sets have been proposed in measuring resilience, many with contrasting epistemological foundations (Bahadur, et al. 2013). Indeed, even similarly ambiguous terms like sustainable livelihoods have seen some degree of coalescence around common frameworks (Scoones, 1998). Not so for resilience. For example, in 2015 Schipper and Langston compared indicator-sets used across 17 different

resilience measurement frameworks applied by development and humanitarian agencies (Schipper & Langston, 2015). Many more have been added to the measurement repertoire since.

Conceptual uncertainties also stem from the fact that resilience is frequently referred to as both an outcome (i.e., achieving a resilient state) and a process (i.e., building resilience-related capacities) (van Breda, 2018). This can be clearly seen in the different methodological approaches used across common evaluative frameworks. For example, FAO's widely used Resilience Index Measurement Approach (RIMA) relies on the collection of hundreds of proxy indicators to quantify four resilience-related capacities, which in turn are aggregated to form an overall measure of household resilience (FAO, 2016) – a clear example of a process-based framework. Conversely, the World Bank relies on an outcome-based model, with resilience inferred on the basis of measuring changes in a household's welfare between pre- and post-shock states (Alfani et al. 2015). To further confuse matters, resilience often refers to a set of programmatic principles (Frankenberger et al.2014) – similar to many of those used to advocate for sustainable development. A range of evaluative tools have also been established to measure the degree to which development programmes have embedded resilience into their operations activities (and outcomes) (Ewbank, 2016).

Despite the vague conceptual basis behind resilience measurement, the grounds for carrying out M&E of resilience remain clear: funders want to know whether their investments are having an impact on the ground; practitioners want to know how to design better projects and improve targeting; and recipients want to see evidence that their lives and livelihoods are improving as a result of interventions. Tracking resilience is key to answering these questions, and a wide range of tools and approaches have been developed in recent years to support the task (Gregorowski et al. 2017; Schipper & Langston, 2015).

While the existence of various definitions and frameworks allows for epistemological diversity, it also makes comparability and transparency between evaluative efforts challenging. As such, there is an inherent danger that M&E of resilience-building interventions reflects what evaluators choose to measure and highlight (Olsson et al. 2015). Given continual pressure to demonstrate successful outcomes in short project timeframes, there is high risk that evaluators select "easier" indicators: ones that allow for straightforward processes of quantification, and that best reflect the progress of a given project (Béné et al. 2017; Ruszczyk, 2019). While frequent use of consultant evaluators helps to provide some objectivity and reduce the bias in evaluations, consultants' heavy dependence on funders like DFID and USAID inherently limits full independence.

Since measurement impacts program design, more can and should be done to promote transparency and practical guide-lines amongst development actors (Constas et al., 2014). While efforts such as the Resilience Measurement Community of Practice (RMEL CoP) (Gregorowski et al., 2017) and Resilience Evidence for Decisions in Development Initiative (REDDI) (Food Security Information Network, 2018) are a helpful step in this direction, real change cannot happen until resilience funders make transparent, standardised, and externally validated measurement approaches a requirement for project delivery. Funders should also be encouraged to work more closely together in aligning their monitoring and evaluation processes to allow better comparison of the effectiveness of projects across contexts and time-frames. As neutral parties, academics can play a convening role in supporting this process.

Another critical challenge is that many resilience measurement frameworks have so far failed to holistically reflect the varied nature of resilience and different aspects of the resilience-building process (Ruszczyk, 2019). For example, the Global Environment Facility (GEF) 's monitoring tool includes a suite of 14 monitored indicators. To track whether a project has supported communities to diversify livelihoods, the primary unit of measurement is the number of people who have benefitted from the adoption of diversified, climate-resilient livelihood options (GEF, 2014). Yet, quantity-based indicators like these do not speak to the quality, durability or relevance of options supported: traits that are much more difficult to monitor but are undeniably better suited to tracking project success. More broadly, such frameworks risk obscuring the political nature of resilience programming, creating a veil of objectivity through measurement.

In reflecting on the suitability of evaluation frameworks for resilience-building interventions, Ruszczyk (2019, p. 18) notes that:

these types of projects may be difficult to account for in a log frame or within other project management tools ... the benefits of such projects would also not be immediate, making it difficult for INGOs to demonstrate the impacts of their projects to donors.

While the GEF's monitoring tool also includes a marker for the percentage of female recipients under the diversification indicator, the above highlights the difficulty of tracking resilience in a holistic manner. Coupled with a tendency for the reporting of project outcomes to be carried out by the implementers themselves, it also means that it is difficult to hold

development actors with resilience activities accountable on progress towards universal properties of resilience: a task that geographers are well placed to support.

5 | PUTTING THE ISSUES OF POWER AND SCALE OF RESILIENCE FRONT AND CENTRE

We have organised this commentary to reflect the resilience programming process in an attempt to bridge the gap we observe between the critical insights of geographers and the practice of resilience programming. While attempts at underscoring the importance of critical examinations of the ethics of scale and power have been made by geographers and other disciplinary experts before us, we believe that this message needs re-emphasising and re-framing in accordance to key stages of programme delivery – from the design and funding of resilience-building programmes through to the monitoring of their legacies. By organising our article in this way, we hope to demonstrate how geographers can meet practitioners on their terms, and engage in practical lines of enquiry relevant to operational programming.

Looking at the commitments made under the various post-2015 development frameworks, we argue for the need to pay more attention to issues of power and scale in resilience across the programming cycle. Despite attempts by scholars to raise these issues, as donors, policy makers, and practitioners look to implement these frameworks in practice, a number of measures are required. For one, interventions should carefully consider whose resilience is being targeted, as well as the social, economic, and political implications of these design choices. Care should also be given to clarifying the extent to which stability or transformational alternatives are sought – and whether they are likely to shift underlying social dynamics. Failure to do so risks reinforcing existing power structures and institutions that thrive under business as usual, often at the expense of those most vulnerable. Transparency is also needed in deciding and measuring successful resilience outcomes, ensuring greater accountability on the part of funders and delivery partners. Each of these are areas where scholars and practitioners can work together to advance the science and practice of resilience, and ensure that the complex challenges of power and scale are at the forefront of resilience programming from funding decisions through evaluation. Alone, donors, policymakers, and practitioners are unlikely to address these challenges, due to incentives, power hierarchies, and lack of accountability, but in partnership with scholars, there are opportunities to significantly advance the quality of programming.

Resilience is not the first concept to evoke such calls: scholars have raised similar critiques of sustainable development previously (Lélé, 1991; Wilbanks, 1994). While there are certain ways that resilience discourses are unique, particularly in the ways that the concept brings together humanitarian, development, and environmental agendas, many of the issues related to power and scale are similar. Geographers, with the ability to step back from the urgency of programming cycles and engage with these scholarly traditions, can help practitioners avoid mistakes that have been made in the past and ensure that lessons from previous calls to attend to issues of power and scale in development programming are not forgotten.

As billions of dollars' worth of funds are channelled towards resilience-building efforts, guiding the lives and livelihoods of countless vulnerable communities and stewarding critical ecosystems, the relevance of power and scale are only magnified. As governments and the development actors that support them embark on the daunting task of COVID-19 recovery, "build back better" is a common refrain, and resilience remains at the centre of the agenda. Ultimately, the value of resilience as a programmatic concept depends on how effective it is in moving past business as usual to build resilience for new development trajectories.

ACKNOWLEDGEMENTS

The authors are extremely grateful to participants at a session on intersections between resilience and wellbeing held at Adaptation Futures in Cape Town, as well as helpful comments made by anonymous reviewers.

DATA AVAILABILITY STATEMENT

No new data were created.

ORCID

Lindsey Jones https://orcid.org/0000-0002-5568-2200

Nathanial Matthews https://orcid.org/0000-0002-1512-1142

ENDNOTES

¹Total breakdown of funds in US\$: BRACED (130 m); GRP (150 m); 100 Resilience Cities (100 m); RISE (130 m); Adaptation Fund (331 m); Pilot Project for Climate Resilience (1,200 m); GCF Climate (2,100 m); GFDRR (240 m); LDCF (1,312 m); SCCF (353 m). Proposals were on average 74 pages long. Proposal FP101: Resilient Rural Belize (Be-Resilient).

REFERENCES

- Adger, W. N., Arnell, N. W., & Tompkins, E. L. (2005). Successful adaptation to climate change across scales. Global Environmental Change, 15, 77–86. https://doi.org/10.1016/j.gloenvcha.2004.12.005
- Alexander, D. E. (2013). Resilience and disaster risk reduction: An etymological journey. *Natural Hazards & Earth System Sciences*, 13, 2707–2716. https://doi.org/10.5194/nhess-13-2707-2013
- Alfani, F., Dabalen, A., Fisker, P., & Molini, V. (2015). Can we measure resilience? A proposed method and evidence from countries in the Sahel, Washington D.C.: The World Bank.
- Atteridge, A., & Remling, E. (2018). Is adaptation reducing vulnerability or redistributing it? Wiley Interdisciplinary Reviews: Climate Change, 9, e500. https://doi.org/10.1002/wcc.500
- Bahadur, A. V., Ibrahim, M., & Tanner, T. (2013). Characterising resilience: Unpacking the concept for tackling climate change and development. Climate and Development, 5, 55–65. https://doi.org/10.1080/17565529.2012.762334
- Barnett, J., & O'Neill, S. (2010). Maladaptation. Global Environmental Change, 20, 211–213. https://doi.org/10.1016/j.gloenvcha.2009.11.004
- Barrett, S. (2014). Subnational climate justice? Adaptation finance distribution and climate vulnerability. World Development, 58, 130–142. https://doi.org/10.1016/j.worlddev.2014.01.014
- Béné, C. (2013). Towards a quantifiable measure of resilience. IDS Working Papers, pp. 1-27.
- Béné, C., Chowdhury, F. S., Rashid, M., Dhali, S. A., & Jahan, F. (2017). Squaring the circle: Reconciling the need for rigor with the reality on the ground in resilience impact assessment. *World Development*, 97, 212–231. https://doi.org/10.1016/j.worlddev.2017.04.011
- Béné, C., Mehta, L., McGranahan, G., Cannon, T., Gupte, J., & Tanner, T. (2017). Resilience as a policy narrative: Potentials and limits in the context of urban planning. Climate and Development, 10, 116–133. https://doi.org/10.1080/17565529.2017.1301868
- Béné, C., Wood, R. G., Newsham, A., & Davies, M. (2012). Resilience: new utopia or new tyranny? Reflection about the potentials and limits of the concept of resilience in relation to vulnerability reduction programmes. IDS Working Papers, pp. 1–61.
- Blythe, J., Silver, J., Evans, L., Armitage, D., Bennett, N. J., Moore, M. L., Morrison, T. H., & Brown, K. (2018). The dark side of transformation: Latent risks in contemporary sustainability discourse. *Antipode.*, 50, 1206–1223. https://doi.org/10.1111/anti.12405
- Brown, K. (2015). Resilience, development and global change. London, UK: Routledge.
- Carr, E. R. (2019). Properties and projects: Reconciling resilience and transformation for adaptation and development. World Development, 122, 70–84. https://doi.org/10.1016/j.gloenvcha.2020.102155
- Chandler, D., & Reid, J. (2016). The neoliberal subject: Resilience, adaptation and vulnerability. London, UK; New York, NY: Rowman & Littlefield International.
- Charlesworth, H. (2005). Not waving but drowning: Gender mainstreaming and human rights in the United Nations *Harvard Human Rights Journal*, 18, 1. https://heinonline.org/HOL/Page?collection=journals&handle=hein.journals/hhrj18&id=6&men_tab=srchresults
- Choudhury, M., & Haque, C. E. (2016). We are more scared of the power elites than the floods: Adaptive capacity and resilience of wetland community to flash flood disasters in Bangladesh. *International Journal of Disaster Risk Reduction*, 19, 145–158. https://doi.org/10.1016/j.ijd rr.2016.08.004
- Constas, M., Frankenberger, T. R., Hoddinott, J., Mock, N., Romano, D., Bene, C., & Maxwell, D. (2014). A common analytical model for resilience measurement—Causal framework and methodological options Resilience Measurement Technical Working Group. FSiN Technical Series Paper no, 2, 52.
- Conway, D., & Mustelin, J. (2014). Strategies for improving adaptation practice in developing countries. Nature Climate Change, 4, 339. https://doi.org/10.1038/NCLIMATE2199
- Cooke, B., & Kothari, U. (Eds.) (2001). Participation: The new tyranny? New York, NY: Zed Books.
- Coyne, C. J., & Ryan, M. E. (2009). With friends like these, who needs enemies? Aiding the world's worst dictators. *The Independent Review*, 14, 26–44.
- Cumming, G. S., Morrison, T. H., & Hughes, T. P. (2017). New directions for understanding the spatial resilience of social–ecological systems. *Ecosystems*, 20, 649–664. https://doi.org/10.1007/s10021-016-0089-5
- Cutter, S. L. (2016). Resilience to what? Resilience for whom? The Geographical Journal, 182, 110-113. https://doi.org/10.1111/geoj.12174
- Dow, K., Berkhout, F., Preston, B. L., Klein, R. J. T., Midgley, G., & Shaw, M. R. (2013). Limits to adaptation. *Nature Climate Change*, *3*, 305–307. https://doi.org/10.1038/nclimate1847
- Eriksen, S. H., Nightingale, A. J., & Eakin, H. (2015). Reframing adaptation: The political nature of climate change adaptation. *Global Environmental Change.*, 35, 523–533. https://doi.org/10.1016/j.gloenvcha.2015.09.014
- Evans, B., & Reid, J. (2013). Dangerously exposed: The life and death of the resilient subject. *Resilience*, 1, 83–98. https://doi.org/10.1080/21693293.2013.770703

- Ewbank, R. (2016). Measuring resilience impact at programme and project levels. London, UK: Christian Aid.
- FAO (2016). RIMA 2: Resilience index measurement and analysis 2. Rome, Italy: United Nations Food and Agriculture Organisation.
- Feola, G. (2015). Societal transformation in response to global environmental change: A review of emerging concepts. *Ambio*, 44, 376–390. https://doi.org/10.1007/s13280-014-0582-z
- Few, R., Brown, K., & Tompkins, E. L. (2007). Public participation and climate change adaptation: Avoiding the illusion of inclusion. *Climate Policy*, 7, 46–59. https://doi.org/10.1080/14693062.2007.9685637
- Fisher, S. (2015). The emerging geographies of climate justice: The emerging geographies of climate justice. *The Geographical Journal*, 181, 73–82. https://doi.org/10.1111/geoj.12078
- Food Security Information Network (2018). Resilience evidence for decisions in development an initiative for country and regionally focused work on resilience measurement. Rome, Italy: Food Security Information Network (FSIN).
- Fox, R. G. (1967). Resiliency and change in the Indian caste system: The Umar of UP. *The Journal of Asian Studies*, 26, 575–587. https://doi.org/10.2307/2051237
- Frankenberger, T. R., Constas, M. A., Nelson, S., & Starr, L. (2014). Resilience programming among nongovernmental organizations: Lessons for policymakers, Washington D.C.: International Food Policy Research Institute.
- Frazier, T. G., Thompson, C. M., Dezzani, R. J., & Butsick, D. (2013). Spatial and temporal quantification of resilience at the community scale. Applied Geography, 42, 95–107. https://doi.org/10.1016/j.apgeog.2013.05.004
- Gaillard, J. C., & Peek, L. (2019). Disaster-zone research needs a code of conduct. *Nature*, 575, 440–442. https://doi.org/10.1038/d41586-019-03534-z
- Global Environment Facility (2014). Updated results-based management framework for adaptation to climate change under the least developed countries fund and the special climate change fund. Washington, DC: GEF/LDCF.SCCF.17/05/Rev.01.
- Green Climate Fund (2020). Project portfolio. Retrieved from https://www.greenclimate.fund/projects
- Gregorowski, R., Dorgan, A., & Hutchings, C. (2017). Resilience measurement–MEL approaches in practice. Challenges and Lessons in Operationalizing Resilience Measurement Frameworks-Experience and Lessons from CoP Stakeholders. In: Hove: ITAD Ltd (www.measuringresilience.org/pdfs/ITAD_Report.pdf)
- Grove, K. (2014). Agency, affect, and the immunological politics of disaster resilience. *Environment and Planning D: Society and Space*, 32, 240–256. https://doi.org/10.1068/d4813
- Imperiale, A. J., & Vanclay, F. (2020). The mechanism of disaster capitalism and the failure to build community resilience in post-disaster situations: Learning from the L'Aquila earthquake. *Disaster Prevention and Management: an International Journal*. https://doi.org/10.1111/disa. 12431
- Jordan, J. C. (2019). Deconstructing resilience: Why gender and power matter in responding to climate stress in Bangladesh. *Climate and Development*, 11, 167–179. https://doi.org/10.1080/17565529.2018.1442790
- Joseph, J. (2013). Resilience as embedded neoliberalism: A governmentality approach. Resilience, 1, 38–52. https://doi.org/10.1080/21693293. 2013.765741
- Kasdan, M., Kuhl, L., & Kurukulasuriya, P. (2020). The evolution of transformational change in multilateral funds dedicated to financing adaptation to climate change. Climate and Development, 1–16. https://doi.org/10.1080/17565529.2020.1790333
- Kates, R. W., Travis, W. R., & Wilbanks, T. J. (2012). Transformational adaptation when incremental adaptations to climate change are insufficient. Proceedings of the National Academy of Sciences of the United States of America, 109, 7156–7161. https://doi.org/10.1073/pnas. 1115521109
- Keating, A., & Hanger-Kopp, S. (2020). Practitioner perspectives of disaster resilience in international development. *International Journal of Disaster Risk Reduction*, 42, 101355. https://doi.org/10.1016/j.ijdrr.2019.101355
- Kennedy, J., Ashmore, J., Babister, E., & Kelman, I. (2008). The meaning of 'build back better': Evidence from post-tsunami Aceh and Sri Lanka. *Journal of Contingencies and Crisis Management*, 16, 24–36. https://doi.org/10.1111/j.1468-5973.2008.00529.x
- Kuhl, L. (2018). Potential contributions of market-systems development initiatives for building climate resilience. World Development, 108, 131–144. https://doi.org/10.1016/j.worlddev.2018.02.036
- Lélé, S. M. (1991). Sustainable development: A critical review. World Development, 19, 607–621. https://doi.org/10.1016/0305-750X(91)90197-P Matin, N., Forrester, J., & Ensor, J. (2018). What is equitable resilience? World Development, 109, 197–205. https://doi.org/10.1016/j.worlddev. 2018.04.020
- Matyas, D., & Pelling, M. (2015). Positioning resilience for 2015: The role of resistance, incremental adjustment and transformation in disaster risk management policy. *Disasters*, 39, s1–s18. https://doi.org/10.1111/disa.12107
- McEvoy, D., Fünfgeld, H., & Bosomworth, K. (2013). Resilience and climate change adaptation: the importance of framing. *Planning Practice & Research*, 28, 280–293. https://doi.org/10.1080/02697459.2013.787710
- Meerow, S., Pajouhesh, P., & Miller, T. R. (2019). Social equity in urban resilience planning. Local Environment, 24, 793–808. https://doi.org/10.1080/13549839.2019.1645103
- Mikulewicz, M. (2019). Thwarting adaptation's potential? A critique of resilience and climate-resilient development. *Geoforum*, 104, 267–282. https://doi.org/10.1016/j.geoforum.2019.05.010
- Mikulewicz, M. (2020). The discursive politics of adaptation to climate change. *Annals of the American Association of Geographers*, 110, 1807–1830. https://doi.org/10.1080/24694452.2020.1736981
- Mosse, D., & Lewis, D. (2005). The aid effect. Giving and governing in international development. London, UK: Pluto.

Neumann, B., Vafeidis, A. T., Zimmermann, J., & Nicholls, R. J. (2015). Future coastal population growth and exposure to sea-level rise and coastal flooding-a global assessment. *PLoS One*, 10, e0118571. https://doi.org/10.1371/journal.pone.0118571

- Nightingale, A. J. (2017). Power and politics in climate change adaptation efforts: Struggles over authority and recognition in the context of political instability. *Geoforum*, 84, 11–20. https://doi.org/10.1016/j.geoforum.2017.05.011
- O'Brien, K. (2012). Global environmental change II From adaptation to deliberate transformation. *Progress in Human Geography*, 36, 667–676. https://doi.org/10.1177/0309132511425767
- Olsson, L., Jerneck, A., Thoren, H., Persson, J., & O'Byrne, D. (2015). Why resilience is unappealing to social science: Theoretical and empirical investigations of the scientific use of resilience. *Science Advances*, 1, e1400217. https://doi.org/10.1126/sciadv.1400217
- Omukuti, J. (2020). Country ownership of adaptation: Stakeholder influence or government control? *Geoforum*, 113, 26–38. https://doi.org/10.1016/j.geoforum.2020.04.019
- Pelling, M. (2010). Adaptation to climate change: From resilience to transformation. London, UK: Routledge.
- Pelling, M., O'Brien, K., & Matyas, D. (2014). Adaptation and transformation. Climatic Change, 133, 113–127. https://doi.org/10.1007/s10584-014-1303-0
- Rhinard, M., & Sundelius, B. (2010). The limits of self-reliance: International cooperation as a source of resilience. A. Boin L. Comfort & C. Demchak, (Eds.), In *Designing resilience: Preparing for extreme events* (pp. 196–219). Pittsburgh, PA: University of Pittsburgh Press.
- Ruszczyk, H. A. (2019). Ambivalence towards discourse of disaster resilience. Disasters, 43, 818-839. https://doi.org/10.1111/disa.12385
- Schipper, E. L. F., & Langston, L. (2015). A comparative overview of resilience measurement frameworks. Analysing indicators and approaches. London, UK: Overseas Development Institute.
- Schuller, M. (2012). Killing with kindness: Haiti, international aid, and NGOs. New Brunswick, NJ: Rutgers University Press.
- Scoones, I. (1998). Sustainable rural livelihoods: A framework for analysis. Brighton, UK: Institute for Development Studies.
- Sherman, M. H., & Ford, J. (2014). Stakeholder engagement in adaptation interventions: An evaluation of projects in developing nations. *Climate Policy*, 14, 417–441. https://doi.org/10.1080/14693062.2014.859501
- Smith, A., & Stirling, A. (2010). The politics of social-ecological resilience and sustainable socio-technical transitions. *Ecology and Society*, *15*, 11. https://doi.org/10.5751/ES-03218-150111
- Sou, G. (2019). Sustainable resilience? Disaster recovery and the marginalization of sociocultural needs and concerns. *Progress in Development Studies*, 19, 144–159. https://doi.org/10.1177/1464993418824192
- Tanner, T., Lewis, D., Wrathall, D., Bronen, R., Cradock-Henry, N., Huq, S., Lawless, C., Nawrotzki, R., Prasad, V., Rahman, M. A., Alaniz, R., King, K., McNamara, K., Nadiruzzaman, M., ... Thomalla, F. (2015). Livelihood resilience in the face of climate change. *Nature Climate Change*, 5, 23. https://doi.org/10.1038/nclimate2431
- Tanner, T., Lovell, E., Weingartner, L., & Batra, P. (2017). Resilience Scan October–December 2016: A review of literature, debates and blogs on resilience. London, UK: Overseas Development Institute.
- Van Breda, A. D. (2018). A critical review of resilience theory and its relevance for social work. *Social Work*, 54, 1–18. https://doi.org/10.15270/54-1-611
- Weichselgartner, J., & Kelman, I. (2015). Geographies of resilience: Challenges and opportunities of a descriptive concept. *Progress in Human Geography*, 39, 249–267. https://doi.org/10.1177/0309132513518834
- Welsh, M. (2014). Resilience and responsibility: Governing uncertainty in a complex world. *The Geographical Journal*, 180, 15–26. https://doi.org/10.1111/geoj.12012
- Wilbanks, T. J. (1994). "Sustainable development" in geographic perspective. Annals of the Association of American Geographers, 84, 541–556. https://doi.org/10.1111/j.1467-8306.1994.tb01876.x
- Wilson, G. A. (2018). "Constructive tensions" in resilience research: Critical reflections from a human geography perspective. *The Geographical Journal*, 184, 89–99. https://doi.org/10.1111/geoj.12232
- Zebrowski, C., & Sage, D. (2017). Organising community resilience: An examination of the forms of sociality promoted in community resilience programmes. *Resilience*, 5, 44–60. https://doi.org/10.1080/21693293.2016.1228158

How to cite this article: Jones L, Kuhl L, Matthews N. Addressing power and scale in resilience programming: A call to engage across funding, delivery and evaluation. *Geogr J.* 2020;00:1–9. https://doi.org/10.1111/geoj.12362