The Hazards of Mainstreaming: Climate change adaptation politics in three dimensions

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Abstract

Under the threat of climate change and with disproportional impacts expected for the world's poorest, the adaptation imperative confers renewed justification to aid transfers, while the urgency of the problem lends itself to the uncritical application of existing solutions. Yet, an emerging body of work has raised critical questions about how adaptation is being conceived and implemented in the global South. We systematize and contribute to this critical scholarship by distinguishing three fundamental political dimensions of the adaptation problem, related to differential responsibility, the global uneven production of vulnerability, and unequal relations of power in adaptation decision-making itself. Further, based on research from across the global South, the paper suggests that the current program of 'mainstreaming' adaptation into existing development aid logics and structures perpetuates an anti-politics machine, obscuring and depoliticizing rather than addressing the political dimensions of the adaptation problem. Mainstreaming risks not only reproducing development-as-usual, but in fact reinforcing technocratic patterns of control. The three-dimensional view of the politics of climate change adaptation is offered as an analytical perspective to sharpen and systematize future critical adaptation scholarship. In the conclusion, we highlight avenues toward enhanced attention to power and justice in climate change research and practice.

1 Introduction

Business is booming in the field of development aid.[1] Under the specter of climate change, with devastating impacts predicted especially for the poorest of the poor in the developing world, the continued relevance of the development aid sector seems assured. At COP21 in Paris, the goal was affirmed to mobilize 100 billion USD annually by 2020 for climate change mitigation and adaptation, while estimates for adaptation finance needs in developing countries range from 280 to 500 billion USD annually by 2050 (UNEP 2016, 42). It is thus widely accepted that support for adaptation ought to reach levels at least comparable to, if not several times higher than, current development aid. Despite the establishment of adaptation-specific funding channels in the first decade of the millennium, adaptation finance is now almost exclusively 'mainstreamed' into channels originally designed for development aid. Meeting current and future adaptation needs in the developing world through mainstreaming would entail an unprecedented increase in aid transfers and a corresponding dramatic expansion of the global development aid apparatus. Yet a growing body of research is beginning to ask critical

questions about whether it is feasible or legitimate to employ the same methods, logics, and actors as development aid in the delivery of adaptation finance.

In some quarters, it has been taken as a foregone conclusion that adaptation must be mainstreamed into existing development aid structures. For example, representing the academic climate of the time, throughout the 2007 IPCC Working Group II report, mainstreaming was only ever referred to as a 'challenge' or 'need' (e.g. Parry et al. 2007, 818–35). The 2014 IPCC report's chapter on Adaptation Planning and Implementation similarly takes, 'the importance of mainstreaming adaptation and the integration of adaptation policies within those of development' as a starting point (Mimura et al. 2014, 873) and goes on to identify the 'limits' and 'barriers' that hinder progress towards this goal (2014, 869–90). Given this fundamental shared assumption in the mainstream literature, the debate primarily turns around *how* mainstreaming can be best achieved, rather than questioning *whether* this is indeed a desirable objective based on specific normative criteria, such as efficiency, sustainability, or social justice.

Support for mainstreaming has also come from development agencies themselves. The World Bank and the GEF (Global Environment Facility) play central roles in the management of the adaptation-specific funds[2] that were established under and in parallel to the UNFCCC. They have also shaped the terms of the debate on what adaptation means more broadly. For example, the report 'Poverty and climate change: Reducing the vulnerability of the poor through adaptation' (Sperling 2003) represents an early consensus of ten of the top development agencies in the world. It argues that, 'the best way to address climate change impacts on the poor is by integrating adaptation responses into development planning' (Sperling 2003, v). This report has been influential in framing the debate on the relationship between adaptation and development since its early stages.[3] Similarly, the 2010 World Development Report, *Development and Climate Change* makes the case for financial transfers from developed to developing countries as one key pillar (along with market-based solutions and rapid economic growth) of the solution to climate change, while positioning the World Bank as the necessary expert organization in such transactions (Gasper, Portocarrero, and St.Clair 2013). Due in part to the ambiguity around what adaptation means and its relationship to development, donor states have largely delegated responsibility for defining, monitoring and implementing adaptation to traditional development actors such as the World Bank, UNDP and OECD (Hall 2017).

At the same time, the case for mainstreaming has been supported in a large body of academic literature (Adger et al. 2003; Agrawala et al. 2003; Huq et al. 2004; Huq and Reid 2004; Rahman and Alam 2003; Schipper 2007; Swart and Raes 2007). The argument is based

on the premise that climate change will significantly affect on-going development processes. Without addressing these concerns, it is argued that present and future development efforts are likely to be wasted (Huq et al. 2004). Adaptation is now firmly established as an integral part of international development in a number of policy and academic forums (see e.g. Eriksen et al. 2007; Matus Kramer 2007; Sperling 2003), with scholarly analyses of the right to adaptation (Polack 2008), chronic poverty and adaptation (Tanner and Mitchell 2008), adaptation and sustainable development (Smit and Pilifosova 2003; Cohen et al. 1998), and gender dimensions of poverty and climate change (Demetriades and Esplen 2008).

Development activities under the banner of 'adaptation' have increased significantly over the last decade. Early analyses of international development agency activities (Klein et al. 2007) and specific cases in developing countries (e.g. Mertz et al. 2009) demonstrated how adaptation began to be mainstreamed into development. More recent analyses find that adaptation finance is now primarily (and increasingly so) delivered through traditional development aid channels (Hall 2017; UNEP 2014, 27–28; Weiler, Klöck, and Dornan 2018). In fact, the current state of adaptation finance and its relationship to development aid can be described as 'de facto mainstreaming' (Scoville-Simonds 2016).

In the context of climate change and development, 'mainstreaming' can have different meanings (Gupta 2009). It can refer broadly to calling attention to climate change concerns within development planning, considering how climate change might impact development goals and activities and, conversely, how these might positively or negatively affect vulnerability to climate change. Few would argue against this form of mainstreaming, which simply means taking climate change seriously and considering its relevance to development (cf. 'gender mainstreaming'). This could be referred to as 'issue mainstreaming.'

A more limited definition, what could be called 'budgetary and operational mainstreaming', refers to integrating adaptation-oriented finance into existing development aid channels and, often implicitly, re-employing the agencies, mechanisms, logics, modalities, norms, institutions, and procedures of development aid for the design and implementation of adaptation. It is easy to see how support for issue mainstreaming, which recognizes the close interdependence of adaptation and development challenges and objectives, can lead to budgetary and operational mainstreaming, in which old solutions are adapted to fit new problems. Given the overlaps between the two issues as well as cost-efficiency arguments, pragmatically speaking, a supporter of this latter form of mainstreaming might ask: if billions of dollars must be transferred from the North to the South, why reinvent the wheel?

A ‘critical adaptation’ (Sherman et al. 2016) current of scholarship has emerged in response to this mainstreaming argument, raising questions about the legitimacy and efficacy of conducting adaptation along the same lines as development. Broadly speaking, the concern is that ‘development-as-usual’ is insufficient to address the adaptation challenge (e.g. Inderberg et al. 2015). In particular, the way existing development projects have been easily relabeled as ‘adaptation projects’ has raised concerns about whether past critiques of development are going unaddressed, in particular the tendency to evade explicit attention to power and politics (Ireland and Keegan 2013), a key point on which this paper seeks to elaborate.

‘Adaptation is political’ – this is a central argument that is expressed in different ways in this critical literature (Eriksen and Lind 2009; Eriksen, Nightingale, and Eakin 2015; Nagoda and Nightingale 2017). This paper recognizes and builds on such literature to ask more systematically, *what exactly makes the climate change adaptation problem political, and what possible problems this poses to the current program of ‘mainstreaming’ adaptation into development*. In addressing these questions, this paper distinguishes three specific political dimensions of the adaptation problem[4]. These dimensions reflect the unequal distributions of power at diverse scales that underlie, 1) globally differentiated responsibility, 2) the uneven production of vulnerability, and, 3) unequal representation in adaptation decision-making. Highlighting the role of power and politics within each of these dimensions, we proceed to point out the implications in relation to dominant ways of conceiving of and implementing adaptation in the developing world. The paper argues that mainstreaming adaptation into development perpetuates an anti-politics machine (Ferguson 1990), obscuring and depoliticizing rather than addressing the political dimensions of the adaptation problem. Further, we argue that mainstreaming risks not only reproducing development-as-usual, but in fact reinforcing technocratic patterns of control in development aid.

This article is structured as follows: each of the three dimensions (responsibility, vulnerability, decision-making) are treated in successive sections. While our purpose is mainly conceptual, in each section, relevant illustrations of the points made are drawn from the published literature (primarily individual case studies, reflecting the state of the field to date). Conclusions are both conceptual and policy-oriented in nature. The article proposes as its main conceptual contribution these three specific political dimensions as analytical starting points for bringing critical attention to the issue of power relations in future adaptation research. Concerning policy and practice, the paper reinforces the concern that reproducing the existing logics and structures of development in the name of adaptation may not address global sustainability and social justice issues, and may indeed exacerbate existing unequal

distributions of power, decision-making and livelihoods resources. We thus argue the need to be careful about considering mainstreaming as the only way forward. In concluding remarks, rather than specific solutions, we put forward three avenues for recognizing and engaging with, rather than eliding, the politics of adaptation.

2. The politics of climate change responsibility

Fundamentally, climate change is a political problem in the sense that it creates both 'winners' and 'losers' in a global power game (e.g. O'Brien & Leichenko 2003). Not only this, but the winning of some—through the benefits of economic growth fueled by capitalist industrial expansion—has been instrumental in producing the losing of others, through cumulated negative impacts of economic growth and climate change unevenly distributed across the globe. Unlike local environmental problems such as, say, urban air pollution, the scale at which the costs and benefits of polluting activities are unequally distributed is truly global. Accordingly, the causes and consequences of climate change can only be understood as an integral part of and deeply engrained in the current structure of the global political economy. While high-emitting groups are still currently able to produce large quantities of greenhouse gases (GHGs), others are both less able to benefit from these industrial activities and less prepared to deal with the impacts. This is the first political dimension we wish to highlight – the unequal relations of power in the global political economy underlying inequitable distributions of responsibility for causing climate change and its associated impacts.

The 'double inequity' of climate change (Füssel 2010; see also Althor, Watson, and Fuller 2016) has of course been recognized at the international scale in terms of national responsibility, whereby countries labelled as industrialized have (currently, non-binding) obligations not only to reduce their emissions (i.e. mitigation), but also to compensate for the consequences, or at the least, assist in 'adapting' to them (the principle of Common but Differentiated Responsibilities, e.g. Articles 3.1 and 4.4 of the UNFCCC). The state-centric approach is the generally accepted framing within debates over responsibility for causing climate change and for compensation, restitution, or other remedies to this injustice. Although much debate continues over the specifics of how responsibility for causing and responding to climate change should be attributed (see e.g. Friman and Linner 2008; Blaxekjær and Nielsen 2015), it is widely accepted that climate change responsibility, in terms of the unequal distribution of causes and consequences, represents a global social justice issue.

In terms of addressing the political dimension of responsibility, mainstreaming adaptation into development poses a number of limitations. One commonly raised issue is that

of additionality, referring to the question of whether adaptation mainstreamed into development finance channels can be considered additional to existing development aid, and how this can be tracked and confirmed. Indeed, re-labelling existing development aid as 'adaptation' appears to be rampant (e.g. Michaelowa and Michaelowa 2007). Further, in per capita terms, countries with the highest current emissions (one possible measure of responsibility, besides cumulated emissions) actually contribute the least finance for adaptation and mitigation (Klöck, Molenaers, and Weiler 2018). So far, states have contributed adaptation aid roughly proportionally to their development commitments, with the same geographical distribution, and through the same institutions and mechanisms as development aid (Scoville-Simonds 2016; Weiler, Klöck, and Dornan 2018). Together, these trends lend credence to concerns that additional resources may be less than what donors claim and may not reflect current or historical responsibility.

Further, underlying the call for ensuring additionality is a recognition that the justification for adaptation finance is different from that of development aid. Whereas development aid is justified and motivated by the geopolitical security and political-economic interests of the donor country (as well as altruism), from the perspective of developing countries the justification for adaptation funding is based on inequitable current and historical responsibility for causing the problem (Gupta 2009). Yet, currently, all adaptation finance, like development aid generally, is voluntary. Donors decide not only how much adaptation finance they will provide, but in what form (grants, loans), and – particularly in the case of bilateral aid – under what conditions, and to which countries and sectors. This level of donor control reflects an extension of a logic of charity carried over from development aid, rather than a logic of corrective justice in response to the unequal distribution of responsibility (Weikmans and Zaccai 2017). While explicitly framing the responsibility to provide adaptation assistance in terms of restitution for a 'climate debt' has garnered controversy (Pickering and Barry 2012; Matthews 2016; Desai, Rogers, and Smith 2015; Bolivia 2009), standards for equity, effectiveness and accountability of interventions would arguably need to be set higher for adaptation under a logic of restitution than for development under a logic of charity. While in an ideal world all development interventions would be held to high standards, a little-discussed alternative would be to establish an international tribunal to ensure the effectiveness and equity outcomes of interventions funded in fulfillment of developed countries' obligations to provide adaptation assistance (Sovacool, Linnér, and Goodsite 2015).

Others have raised the issue of the distribution of responsibility and of adaptation payments sub-nationally. The dominant framing of the climate change issue has been drawn

along North-South and rich-poor *country* lines, raising issues of the appropriate scale for assigning responsibility and distributing adaptation payments. Focusing on the adaptation of 'poor countries' instead of poor groups raises the issue of a potential mismatch between the interests of the state and different sectors of its population (Kates 2000). This has played out empirically, for example, in the case of Malawi, where it was found that while the country is framed as 'vulnerable,' which justifies the allocation of adaptation finance, the distribution of adaptation-related aid sub-nationally reflects donor convenience and aid-absorption capacity rather than supporting the most vulnerable populations (Barrett 2014). In Pakistan, framing climate change as an 'international' issue between developed and developing countries can be seen as a strategy for deresponsibilizing political elites and depoliticizing issues of distribution domestically (Jamali 2015). In short, even if adaptation aid were directed to the most vulnerable countries, mainstreaming adaptation into development is unlikely to avoid the well-known problem of elite capture.

However, a more general question can be asked apart from whether the right amount of money is flowing between the right countries and appropriately distributed sub-nationally. To what extent can countries be considered the responsible parties (and appropriate recipients) in the first place? More precisely, do transfers from developed to developing countries adequately respond to the full politics of the issue of responsibility?

First of all, in terms of the geographical distribution of anthropogenic GHG sources, emissions inequality is in fact far greater within countries than between them (Sauter, Grether, and Mathys 2016). While the current discourse on responsibility is overwhelmingly statist, alternative units of analysis could be employed (Caney 2005, 754–55). For example, it has been pointed out that 63% of cumulative global emissions of carbon dioxide and methane since 1751 can be attributed to just 90 'carbon majors'—the producers of fossil fuels and cement, including state-owned and corporate investor-owned entities (Heede 2014; see also Ekwurzel et al. 2017), which raises the suggestion that 'some degree of responsibility for both cause and remedy for climate change rests with those entities that have extracted, refined, and marketed the preponderance of the historic carbon fuels' (Heede 2014, 231). A further alternative framing, enacting a different scalar politics, would be to point out the unequal distribution of responsibility between social classes (Baer et al. 2009; Barnett 2007; Joshi 2013), 'making the problem more one of class and capital than of states and sovereignty' (Barnett 2007, 1363). Such an approach would recognize the huge inequalities within countries in the global North as well as in the South in terms of responsibility for emissions and capacity to pay (see e.g. Baer et al. 2009).

The current mainstreaming of adaptation into development adopts and reinforces the classic scalar politics of development aid that, first, divides the world up into individual countries, then assigns each country to the category of either developed or developing. Yet the world can be, and is, *divided* in many ways. While this North-South framing does recognize one dimension of the unequal distribution of responsibility (which indeed should not be neglected), it nevertheless frames its politics in a particular way while ignoring other possibilities and obscuring deeply political issues such as the role of international organizations and transnational corporations and the inequality between social classes globally. The mainstreaming of adaptation into development aid, itself founded on a North-South divide, is a convenient solution that at the same time obscures alternative scalar framings of the politics of climate change responsibility.

Through climate change, the atmosphere itself has become a medium through which unequal power relations are exercised. The struggles that are implicated in the global geopolitics of climate change are not just struggles between the North and South or between developed and developing countries, but between rich and poor, between individuals and corporations, between elite and marginalized classes, and between generations (Gardiner 2006; Knutti and Rogelj 2015). The unequal distribution of the causes of climate change is a fundamentally political issue that cuts across all social distinctions globally. The complex multi-scalar politics of climate change responsibility are ill-captured by the currently dominant framing in terms of inter-state responsibility and corresponding inter-state, voluntary, adaptation payments, a schema which is reinforced by the convenient recycling of the global template of the categories, actors, and mechanisms of development aid.

3. The politics of vulnerability

Climate change is but one symptom and aspect of the current and historical structure of the global political economy. In this broader web of relationships, unequal relations of power across scales differentially produce vulnerability and predispose particular groups to be harmed by a problem such as climate change in the first place. The patterns whereby historically-marginalized groups are typically precisely the same groups that one finds living in high-risk zones and depending on high-risk livelihoods activities are inherently historical and political processes. For example, agricultural and trade policies formulated at national and international levels, like climate change, also produce ‘winners’ and ‘losers’, and may thus lead to particular groups being more ‘exposed’ to climate change and less able to deal with the consequences

(O'Brien et al. 2004). That is, vulnerability has a structural and political dimension related to pre-existing unequal power relations between groups.

Thinking on vulnerability has a long history and reflects diverse research traditions (Eakin and Luers 2006; Scoville-Simonds and O'Brien 2018). The development of the concept with respect to vulnerability to climate change per se has been one of successively incorporating social and contextual factors (Füssel and Klein 2006; Räsänen et al. 2016). Yet, a rich and longer history of thinking on vulnerability exists in relation to global environmental change more generally (e.g. Liverman 1990), in research on hazards (e.g. Blaikie et al. 1994) and in relation to food security (e.g. Watts and Bohle 1993). Competing conceptions of vulnerability continue to co-exist, based on different underlying assumptions (Bassett and Fogelman 2013; Kelly and Adger 2000; McLaughlin and Dietz 2008). These are more than mere academic debates; how we think about vulnerability affects the kind of solutions that are proposed, and ultimately, implemented (O'Brien et al. 2007).

Critical currents of this research argue that vulnerability is produced within specific local contexts due to proximate and root causes operating at local and broader scales (Blaikie et al. 1994; Ribot 2014). Vulnerability is not simply an innate or acquired characteristic of particular individuals or groups based on what assets or capacities they may have or lack, rather, it is produced and experienced through multi-scalar webs of politics, from the local to the global. Unequal relations of power simultaneously produce the security of some and the vulnerability of others (Taylor 2014). This view relates to a theoretical understanding of power itself not as something one has or lacks (cf. 'adaptive capacity'), but rather as only existing within and exercised through social relations between individuals and groups (Foucault 1984). A relational conception of power enables a view of vulnerability as produced at the crossing intersections of agonistic social relations, enabling and constraining the available choices of different actors. This view supports a broader conception of vulnerability as situated within not only a local but global, and not only biophysical but social and explicitly political, context.

Common approaches to assessing and addressing vulnerability tend to focus narrowly on vulnerability *to* the hazards produced by climate change, rather than addressing vulnerability produced by multiple stressors and the root causes of these (Kelman 2014). The National Adaptation Plans of Action (NAPAs) in particular, one of the primary policy instruments for addressing vulnerability and adaptation in Least Developed Countries in the context of the UNFCCC, have been criticized for framing vulnerability as the outcome of climate change itself, while ignoring its contextual dimensions and structural root causes. For example, Nepal's NAPA and other adaptation policy documents reproduce dominant approaches to development

focused on economic growth and access to markets, while ignoring structural causes of vulnerability such as caste and gender discrimination in access to land, water, and decision-making (Nagoda 2015; Nagoda and Eriksen 2015; Nagoda and Nightingale 2017). Similarly, Tanazania's adaptation policy, in claiming that its population is made vulnerable solely by the processes of climate change itself, obscures how international competition for local resources (including land grabs and conservation initiatives in the name of climate change mitigation) coupled with local land tenure insecurity play important roles in producing vulnerability for socially-marginalized groups (Smucker et al. 2015). The focus of Peru's national adaptation policies on attracting discrete adaptation projects funded by international development aid draws attention away from the vulnerability-producing effects of national policies supporting high water consumption extractive industries and export-oriented agriculture in the irrigated coastal desert (Scoville-Simonds 2015). In Pakistan, the long-term historical development of the Indus River basin through the construction of dams and irrigation projects has led to reduced downstream flow, destruction of mangroves, and saltwater intrusion in the delta (e.g. Anwar, Chandio, and Bhalli 2014; Kravtsova, Mikhailov, and Efremova 2009). The uneven distributional effects of this mode of development are recognized in the local narratives of marginalized fishing communities of the Indus Delta, yet the discourse promoted by development actors frames water shortages, reduced fish stocks, and environmental degradation as impacts of climate change alone, obscuring the historical and deeply political origins of these multiple stressors (Jamali 2015).

Vulnerability is certainly shaped by local, proximate factors such as poverty and loss of livelihoods resources. Yet in many cases, important root causes of so-called 'local' vulnerability are anything but local – they are directly tied to multi-scalar processes (Eriksen and O'Brien 2007; Ribot 2011) including national water and agricultural policies, foreign investments in extractive industries, and global markets for particular agricultural goods and mineral resources. Despite the multiple factors operating at diverse scales to produce vulnerability in a particular context, mainstreamed adaptation funding reproduces development aid's reliance on discrete, short-term, local-scale 'projects' (Scoville-Simonds 2016). Adopting development's project-based approach assumes that vulnerability exists in discrete localities 'out there,' and that by directing a sufficient number of project interventions to so-called 'highly vulnerable areas' or 'vulnerability hotspots' (e.g. López-Carr et al. 2014), the essentially multi-scalar and relational problem of uneven vulnerability production could be addressed. Interventions at the local level that could conceivably support political change at local and broader scales, such as supporting communities in their claims for the recognition of their rights to land and water resources, are

likely to be viewed as 'too politically sensitive' for implementation through development aid projects, not the least because of established norms restricting explicitly-political interventions by development agencies. Adaptation support initiatives based on development aid projects, as is currently the trend within the mainstreaming program, thus face significant constraints and few incentives for addressing the deeply political and often extra-local root causes of vulnerability production.

As against the mainstream framing of vulnerability as produced by climate change itself or by a 'lack of adaptive capacity' at the local level, we contend that climate change adds to and interacts with historical vulnerabilities that are the result of complex and multi-scalar processes and relations that produce winners and losers and can only be described as inherently political. Vulnerability to climate change cannot be understood or addressed without taking into account the deeply political processes of uneven development, the historical and contemporary effects of colonialism, and global to local scales processes of exploitation and marginalization. Yet cases such as those briefly cited here demonstrate the ways in which the historical, political and cross-scalar origins of vulnerability are removed from focus through 'mainstreaming' when this is put into practice as the reproduction of business-as-usual approaches to development in the name of adaptation.

4. The politics of adaptation decision-making

Adaptation involves choices, trade-offs, and differentiated outcomes for different groups. This simple assertion is largely missing from much adaptation research and practice. Decision-making broadly speaking is a question of values and whose values come to count within the context of unequal relations of power. Adaptation decision-making, or 'adaptation governance' when this term is understood in an analytical rather than prescriptive or normative sense[5], is thus an inherently political process that involves the inclusion or exclusion of different groups and of their choices, voices, and values. As we make explicit below, adaptation activities necessarily take place within contexts of on-going political struggles and produce their own distributive effects.

Two related aspects of the politics of adaptation decision-making can be highlighted. First, is the governance question of 'who decides?' (cf. Hufty 2011). That is, who decides how (or even whether) a particular group will adapt to climate change? Whose definition of the problem takes precedence; whose interests, values, worldviews, and knowledge are taken seriously? Emerging research has demonstrated not only that different social groups perceive the effects of climate change differently, but that they understand and relate to those effects in

markedly contrasting ways. How individuals and groups understand and respond to changing climatic conditions is influenced by local priorities and group affiliations (Jurt et al. 2015), values (Adger et al. 2013; O'Brien 2009; O'Brien and Wolf 2010), beliefs (Allison 2015; Gergan 2017; Murphy et al. 2016; Watson and Kochore 2012), culture (Barnes et al. 2013; Crate and Nuttall 2009; Roncoli, Crane, and Orlove 2009), and the ontological and epistemological underpinnings of differing worldviews (Pyhälä et al. 2016; Rosengren 2016; Scoville-Simonds 2018). Broadly speaking, it can be said that how we perceive and respond to climate change depends on factors that relate to (individual and collective) 'interior dimensions' (O'Brien and Hochachka 2010) and include 'the individual and collective ideas about what is just, desirable and sustainable, which are in turn inherited, formed, transformed, negotiated or fought for in the political sphere' (O'Brien 2018, 157). The objective reality of climate change aside, how climate change is actually experienced and understood has clearly subjective and intersubjective dimensions. Whose values count (O'Brien 2009; O'Brien and Wolf 2010; Wood et al. 2018), whose knowledge is considered valid (Yeh 2016; Goldman, Turner, and Daly 2018; Nightingale 2016) and whose standards for acceptable loss (Tschakert et al. 2017), desirable futures (Milkoreit 2017), and legitimate authority (Nightingale 2017) dominate decision-making have direct consequences for which interests are represented and reinforced in adaptation outcomes and which are sidelined, marginalized or ignored.

Decisions related to adaptation, like all decision-making in society, will therefore necessarily have distributive effects. While a particular intervention may constitute appropriate adaptation for some groups, the same intervention may produce maladaptation for another (Barnett and O'Neill 2010). In fact, in contexts of political struggle and differentiated outcomes, 'one group's adaptation is another group's hazard' (Kates 2000, 15). On a systemic level, rather than reducing vulnerability across the board, adaptation interventions may shift vulnerability between groups (Atteridge and Remling 2018; Juhola et al. 2016). Given this, it has been argued that adaptation decision-making must be more explicitly politicized in order to avoid exacerbating inequitable distributions of adaptation costs and benefits (Mikulewicz 2017). Here, in referring to the 'politics of adaptation decision-making' we thus include both the politics of distribution of outcomes (who gets what) and of process (whose voices count) in determining those outcomes, which are clearly interrelated. Adaptation actions (plans, projects, policies, individual activities) will produce 'winners' and 'losers' in terms of the distribution of resources as well as in terms of reinforcing (or challenging) prevailing systems of power relations (Eriksen and Lind 2009), including the norms that determine the 'rules of the game'

(Hufty 2011) and thus will go on to shape future decision-making, potentially entrenching or challenging existing forms of authority in other domains.

Ignoring the politics of adaptation decision-making can have significant consequences in practice and case study research has demonstrated how mainstreaming adaptation into development can exacerbate these effects. For example, a case in Vietnam (Beckman 2011) examined how hydroelectric dam and forest protection policies contribute to regulating floods in lowlands, but at the same time undermine access to land and forest resources for mountain populations, which directly impacts their ability to adapt. In Peru, adaptation initiatives have been promoted through a climate crisis narrative that frames choices in binary terms—either accepting expert-defined adaptation activities, or facing catastrophic livelihood failure—rather than engaging local communities in a dialogue regarding realistic threats, local priorities, and response options (Scoville-Simonds 2015, 229–74). In Pakistan, the prevailing techno-managerial adaptation discourse supported by national policy and development actors supports the idea that marginalized communities must accept and 'adapt' to their now less productive environments while eliding ongoing political struggles over the equitable distribution of water and land (Jamali 2015). In fact, case studies across the world raise similar concerns: NGO campaigns in Tuvalu that are intended to support adaptation but ignore local culture and identities (Farbotko and Lazrus 2012); the capture of adaptation objectives by particular political interests in Nepal (Yates 2012); and the mobilization and appropriation of the climate change agenda in Mozambique in, 'bureaucratic politicking, social manipulation and everyday politics of competing claims over resources' (Artur and Hilhorst 2012). Although what exists to date are primarily individual case studies, there is a clear emerging trend that, worldwide, adaptation interventions carried out along the lines of development poorly incorporate the inherent politics of decision-making processes and their uneven outcomes (see also Arnall, Kothari, and Kelman 2014; Sovacool and Linnér 2016; Owusu-Daaku 2018).

Adaptation decision-making is inherently political in process and effects, yet the research cited above suggests that mainstreaming adaptation into development contributes to depoliticization by removing attention to competing values and interests and to the differentiated impacts of interventions on different groups. Even so-called participatory approaches, now mainstream in development and conservation practice, demonstrate a number of well-known pitfalls such as the potential to be coopted by more powerful individuals and groups or dominated by a singular form of expertise (Cooke and Kothari 2001; Hufty et al. 2008). In particular, development thinking has long been criticized for a heavy reliance on decision-making led by technical expertise. As critical development research tells us, when

development problems are rendered technical, they are at the same time depoliticized, taken out of socio-ecological and politico-historical contexts and presented as researchable bits of knowledge and resources that can be solved and managed through the right kind of expertise (Escobar 1998, 2011; Li 2007; Ferguson 1990).

Our understanding of climate change likewise relies heavily on technical knowledge and expertise. It is commonly framed as a problem that requires climate modelling, impact projections, and technical solutions (Friman and Linner 2008; Bassett and Fogelman 2013; Taylor 2018). Current adaptation thinking is dominated by what has been called a 'techno-managerial' or 'techno-scientific discourse' (Adelman 2013; Jamali 2015; Mitchell 2002; Swyngedouw 2010). While technical knowledge is one necessary component in holistically understanding and approaching the problem, the current dominance of this perspective limits the range of conceivable solutions and downplays not only the social sciences, but also and especially the voices, choices, and values of already-marginalized groups (Hulme 2011; Yeh 2016; Nightingale 2016; Goldman, Turner, and Daly 2018). Given the framing of adaptation and climate change as technical problems, mainstreaming adaptation into development risks not only sustaining 'development-as-usual' but indeed falling back on, reproducing and reinforcing previously-discredited technocratic approaches to development ('development-like-it-use-to-be').

Development is often framed as a positive, win-win process. It is almost axiomatic to say that in 'under'-developed countries, what is needed is 'more' development. By extension, and through the absorption of the adaptation concern into developmentalist logic, it is assumed that 'vulnerable' countries and people simply need 'more' adaptation. Yet we contend here that adaptation (like development) can occur along different pathways, in response to different interests and values, each with differentiated effects for different groups. Thus, adaptation (like development) not only involves choices, it is also likely to produce both winners and losers, and the distribution of winning and losing will depend on who controls adaptation decision-making. Within the 'win-win' (or 'more is better') development paradigm that currently prevails and into which adaptation has been enlisted, it is easy to lose sight of adaptation decision-making as a process involving political struggles between different groups with their interests, values and authority at stake.

5. Conclusion

We have identified three specific ways in which climate change adaptation can be understood as a fundamentally political issue, by outlining the politics of climate change

responsibility, the politics of vulnerability, and the politics of adaptation decision-making. In addition to synthesizing research from an emerging critical current in adaptation scholarship, we suggest that these dimensions may provide a fruitful path forward in systematizing and sharpening this research. We propose that these three dimensions constitute a useful analytical starting point to apprehending a full picture of the politics of adaptation. This can be critical in recognizing blind spots or moments of concealment both in research and policy initiatives, drawing attention to the complex role of power in producing and responding to climate change.

We have further raised the concern that development aid as it is today may be ill-equipped for addressing adaptation because it tends to elide these fundamental political dimensions, effectively depoliticizing responsibility, vulnerability, and decision-making in the name of a rapid implementation of convenient ready-made solutions. Despite the growing current of critique we have sought to highlight in this paper, to date, mainstreaming adaptation funding and projects into existing development mechanisms has largely been accepted as the only way forward with scant critical analysis of the political nature of adaptation. Although critical adaptation scholarship today is primarily case study based, the research we have synthesized here demonstrates the different ways that adaptation mainstreamed into traditional development logics and approaches in diverse contexts across the developing world fails to acknowledge these deeply political dimensions.

The current research on climate change adaptation and its relationship to development suggests a need to be more careful about what is meant by 'mainstreaming' and how adaptation is conceived and implemented in practice. Whereas few would argue against 'issue mainstreaming', whereby climate change issues are taken seriously within development planning, 'budgetary and operational mainstreaming', on which this paper has focused, runs the risk of perpetuating an anti-politics machine, reproducing existing structures and logics of development that depoliticize fundamentally political issues. Given this, there is need for renewed scholarship and engagement with practitioners to maintain critical attention to the effectiveness, and more broadly, the intended and unintended effects, of interventions in the global South.

Although the purpose of this paper is primarily conceptual, three broad policy-oriented implications in line with this current of research can be offered. First, if nothing else, the research cited above clearly indicates that supporting adaptation in the global South is almost certainly a task more fraught with difficulty and potential conflict than is broadly recognized, raising serious questions about the degree to which adaptation finance payments, as currently implemented through development aid, can be considered effective and sufficient forms of

corrective justice. From a responsibility perspective as well, there is something disingenuous about paying people to 'adapt' to a problem one has caused, all the while continuing to produce that problem, and, that, at ever-accelerating rates, as is currently the case with climate change and recurrent failures to establish binding emissions targets. While historical responsibility makes clear an obligation to assist through support for adaptation, this cannot in any way remove urgency from the obligation to mitigate – to fix the causes of the problem in the first place. Payments for adaptation, not the least because of their questionable additionality and effectiveness, cannot in any way be considered to diminish responsibility and urgency for mitigation. A certain skepticism must therefore be borne in mind towards any discussions of the 'optimal mix' or 'cost-benefit trade-offs' between adaptation and mitigation – whose costs are being traded for whose benefit?

Second, the political and structural drivers that produce vulnerability in the first place must be attended to (e.g. Ribot 2011). This will require critical vulnerability analyses to identify proximate and root causal processes as well as potential remedial interventions. Given the political nature of the problem, such analyses must not shy away from identifying solutions that are likewise political. In particular, it should be underlined that socially-just and sustainable vulnerability reduction will require not only change ('adaptation') at the local level in the global South as is commonly understood, but change in international and domestic policies in the global North. As such, we should not neglect the relevance for vulnerability reduction of global initiatives such as those seeking to legally enforce corporate accountability (particularly in resource extraction sectors), address tax evasion and corruption of public officials, and support human rights. In other words, advancing a broad social justice agenda at the global scale may have important consequences for vulnerability reduction in local contexts, even if not labelled as 'adaptation' per se.

Finally, as a complement to a serious dedication to mitigation and multi-scalar vulnerability reduction, there may nevertheless remain a role for financial support to adaptation initiatives at the local level. Yet, as highlighted above, greater attention must be drawn to issues of control and distributive effects of such initiatives to avoid inequitable and unsustainable outcomes. A starting point would seem to be a commitment to engaging with local communities in adaptation research and action-research initiatives that align with local perspectives, knowledges, and worldviews (e.g. Marin 2010; Tengö et al. 2014; Hochachka 2019; Ahearn, Oelz, and Dhir 2019). This must be done, however, in a way that recognizes the pitfalls of, and engages critically and reflexively with, inherent issues of the coproduction of knowledge and

power, both within heterogeneous communities and between these and external actors (Tschakert et al. 2016; Nightingale et al. forthcoming).

Development is not always a failure, but it is also not always a success, and the costs and benefits of those successes and failures are not always equitably distributed. The challenge of adaptation calls for renewed critical analyses of development, driven by a concern for global social justice and environmental sustainability. Given the moral imperative for correcting the fundamental injustice that climate change represents, actions in the name of adaptation must be held to higher standards of equity, effectiveness, and accountability than development aid in its current form has been able to maintain. That is, by highlighting in this paper the ways adaptation has stumbled into the same pitfalls as development aid, we do not propose to reinvent the wheel, but to turn the screw of critique.

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[1] In a long-term historical perspective, net Official Development Assistance (ODA) has generally followed an upward trend despite annual variations. One exception was a downturn in the mid to late 1990's amid new questions around the effectiveness of aid and its continued political economic justification around the end of the Cold War. However, having reached a relative low point of 63 billion USD in 1997, net ODA has since enjoyed relatively steady annual increases to reach 147 billion USD in 2017 (OECD 2019).

[2] These are the Pilot Program for Climate Resilience, Least Developed Countries Climate Fund, Special Climate Change Fund, Adaptation Fund, and Green Climate Fund (the latter also addresses mitigation). The different roles of development aid institutions in the governance of each of these funds is reviewed in Scoville-Simonds (2016).

[3] For example, the IPCC, despite its mandate to avoid policy prescription and to eschew 'grey literature' (non-peer reviewed academic works), cited this development agency consensus report no less than 11 times in the 2007 Working Group II assessment. Other works by the World Bank, in particular, are also frequently cited by the IPCC in support of the (policy prescriptive) mainstreaming program (for details see Scoville-Simonds 2015, 81–84).

[4] An earlier conception of these three dimensions was developed in Scoville-Simonds (2015, 310–14). Work that takes a similar 'three dimensional' perspective includes the identification of 'three main sources of inequality: responsibility for the problem; vulnerability to climate-related shocks and stresses; and uneven participation in global efforts to solve the problem' (Timmons Roberts and Parks 2010, 67); Liverman's (2015) review of the contributions of political ecology to studying the causes, impacts and vulnerability, and responses to climate change; and Remling's (2018) analysis of how EU policy depoliticizes the causes, consequences, and responses to climate change. To our knowledge, identifying the broad issues of responsibility, vulnerability, and decision-making as three dimensions inherent to the political nature of the problem itself is however unique.

[5] While we understand governance as an analytical concept directly concerned with the analysis of power (e.g. Hufty 2011; Zwarteveen et al. 2017), to date, the literature on 'adaptation governance' has given surprisingly little explicit attention to power (Vink, Dewulf, and Termeer 2013). For this reason, we retain the term 'politics of adaptation decision-making' in this section.