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## Is adaptation a local responsibility?



Johanna Nalau<sup>a,\*</sup>, Benjamin L. Preston<sup>b</sup>, Megan C. Maloney<sup>c</sup>

<sup>a</sup>Griffith Climate Change Response Program (GCCRP)/Griffith Institute for Tourism (GIFT), Gold Coast Campus G01, 2.25, Griffith University, Queensland 4222, Australia

<sup>b</sup>Climate Change Science Institute and Environmental Sciences Division, Oak Ridge National Laboratory, Building 2040, Room E239, MS-6301, PO Box 2008, One Bethel Valley Road, Oak Ridge, TN 37831-6253, USA

<sup>c</sup>Climate Change Science Institute and Geographic Information Science and Technology Division, Oak Ridge National Laboratory, Building 5800, Room I214, MS-6017, PO Box 2008, One Bethel Valley Road, Oak Ridge, TN 37831-6253, USA

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### ABSTRACT

Adaptation is now firmly embedded in the societal discourse regarding the management of climate risk. In this discourse, adaptation planning and implementation at the local level are seen as particularly important for developing robust responses to climate change. However, it is not clear whether the mantra that adaptation is local holds true given the multi-level nature of climate risk governance. Using a multi-method approach, this paper examines the extent to which adaptation should be framed as a local issue and, specifically, the role of local government in adaptation relative to other actors. In so doing, the paper first explores the extent to which the local framing of adaptation is embedded in the international adaptation literature. This is followed by a specific case study from Southeast Queensland, Australia, which focuses on the critical examination of the processes of responsibility shifting and taking among actors involved in coastal adaptation planning. Results indicate the assumption that adaptation is local remains widely held in adaptation science, although unclear divisions of responsibility for climate change adaptation as a significant constraint on actors' willingness to implement adaptation. Furthermore, attributing responsibility for adaptation to local actors might not necessarily be a robust strategy, due to the existence of particularly strong constraints and value conflicts at local levels of governance. Greater appreciation by researchers and practitioners for the interactions between local actors and those at higher levels of governance in shaping response capacity may contribute to more equitable and effective allocations of responsibilities for adaptation action.

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## 1. Introduction

Climate change adaptation has now firmly established its place as a crucial and much needed response to global climate

change (Adger and Barnett, 2009; Biesbroek et al., 2010; Ford and Berrang-Ford, 2011). Within the international discourse on climate policy, the adaptation needs of developing nations and support for adaptation through various finance mechanisms has evolved to become a key negotiating point and element of

\* Corresponding author. Tel.: +61 07 555 27537.

E-mail addresses: [j.nalau@griffith.edu.au](mailto:j.nalau@griffith.edu.au) (J. Nalau), [prestonbl@ornl.gov](mailto:prestonbl@ornl.gov) (B.L. Preston).

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policy design (Schipper, 2006). As a consequence, the framing of climate change as a global commons problem that can be addressed by greenhouse gas mitigation has been expanded to account for the differential impacts and adaptive capacities that exist at national and sub-national levels.

At the national level, planning for adaptation has become a major strand of public policy, with many governments creating new institutions to deal with this wicked policy problem (Hallegatte, 2009; Patwardhan et al., 2009). Although developing nations are recognised as being particularly vulnerable to the effects of climate change, concern for adaptation has grown rapidly in developed nations also due to growing awareness of their vulnerability to climate variability and extreme weather events as well as climate change (Ford and Berrang-Ford, 2011; Preston et al., 2011). However, even in relatively wealthy developed nations, actors have identified a range of constraints that impede adaptation options or their effectiveness including information deficit, economic/financial resources to undertake adaptation, institutional capacity, technological capacity, political challenges, and societal trends (Ford and Berrang-Ford, 2011; Klein et al., 2014; Moser and Ekstrom, 2010; Mustelin, 2011).

In this process of expanding adaptation planning, a strong emphasis has been placed on action at the local level (Corfee-Morlot et al., 2011; Measham et al., 2011), which effectively shifts the discussion of the scale of agency from the global to the local level. For example, adaptation is conceptualised as “a local issue addressing local circumstances and needing local solutions and actions” (BlueScope-Steel, 2011, p. 9) and as “always local and regional” (Carter and Raps, 2008, p. 29). Underlying these perceptions is the principle of subsidiarity, which is the belief that “any particular task should be decentralised to the lowest level of governance with the capacity to conduct it satisfactorily” (Marshall, 2008, p. 80), and is essentially a question regarding which level should be responsible for which action. Indeed, those advocating decentralisation continue to claim that “local actors are always able and willing to govern their natural resources effectively (Andersson and Ostrom, 2008, p. 71). At least in the context of developed nations, subsidiarity has manifested as local government being recognised as the key actor for adaptation planning and implementation and therefore the actor with the greatest responsibility (Baker et al., 2012; Edvardsson Björnberg and Hansson, 2011; Mustelin, 2011; Otto-Banaszak et al., 2010). However, formal governments are not the only actors with local agency. Community-based adaptation, in particular, focuses on “local problems and locally appropriate solutions” and “provides an opportunity to extend the local context of choice” (Ensor and Berger, 2009, p. 231). Hence, formal governments at the local level can work in collaboration with other local actors to pursue adaptation planning and implementation.

While “most adaptations will be undertaken at local level” (Grasso, 2010, p. 26) in terms of practical implementation, the evidence that local scale is best placed to govern adaptation is however more complex. A growing literature on multi-level governance clearly demonstrates that adaptation by local actors is often enabled but more so hindered by broader governance arrangements that include actors at higher levels (Keskitalo, 2010; Lawrence et al., 2013; Simonsson et al., 2011;

Urwin and Jordan, 2008). In such multi-level systems of governance, the local level is often the weakest component and thus has limited capacity to plan for long-term adaptation let alone implement adaptation strategies (Measham et al., 2011; Reisinger et al., 2011). Hence, a potential mismatch seems to exist between the concept of the localness of adaptation and its actual implementation at the local scale. Yet, to date, this issue has not been formally problematised or investigated although some critical reflection is starting to emerge (see Amundsen et al., 2010; Baker et al., 2012).

The objective of this paper is to elucidate this issue by addressing two related questions: (1) to what extent is the paradigm of local responses to adaptation embedded in adaptation science, and (2) to what extent is this paradigm consistent with stakeholder perspectives on the governance of adaptation in practice? In addressing these questions, the paper draws on research on cognitive reasoning in the framing of adaptation (Preston et al., 2013) to identify the extent to which adaptation is understood as a local process within the adaptation science literature. This is followed by a case study focusing on researchers and practitioners in the region of South East Queensland, Australia (Mustelin, 2013). We define adaptation science broadly as “research that generates knowledge that can inform adaptation and its implementation” (Preston et al., 2013, p. 1). Given the governance context for adaptation in Australia represents important background for the case study, this paper proceeds with an overview of that context.

## 2. The Australian adaptation policy context

The Australian governance system is a liberal democracy comprised of three tiers of government: the Federal, state and territory governments, and the local governments. In the distribution of powers, local governments are “a silent partner” (Althaus et al., 2007, p. 88) as they are not recognised in the constitution as having legal mandates, but are arms of state and territory governments (Smith et al., 2011). This division of powers also poses severe challenges to the range of policy instruments available at the local level (Althaus et al., 2007; MacIntosh et al., 2014). State governments have to approve all local government planning schemes, which should align with state planning policies. Local governments are responsible for “land use planning, infrastructure and asset development, operation and maintenance, as well as ensuring community well-being and safety” (Queensland Government, 2009, p. 120) – activities that are funded through local property taxes. Local governments, however, remain highly dependent on financial allocations from the state (Althaus et al., 2007). In all encompassing policy issues, Australian governments work together through the Council of Australian Governments (COAG).

All levels of Australian government have engaged in adaptation through different initiatives and programmes, although there is no State or Federal mandate to undertake adaptation planning (Gero et al., 2012). The ‘economic rationalist paradigm’ with its focus on asset loss and disruptions to the business continuity has been, to a great extent, the base of adaptation planning and policy action in Australia (Smith et al., 2011, p. 69). The majority of research

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