



Delivering organisational adaptation through legislative mechanisms: Evidence from the Adaptation Reporting Power (Climate Change Act 2008)



S.R. Jude ^{a,*}, G.H. Drew ^a, S.J.T. Pollard ^a, S.A. Rocks ^a, K. Jenkinson ^b, R. Lamb ^c

^a Cranfield University, School of Water, Energy and Environment, Cranfield, Bedfordshire MK43 0AL, UK

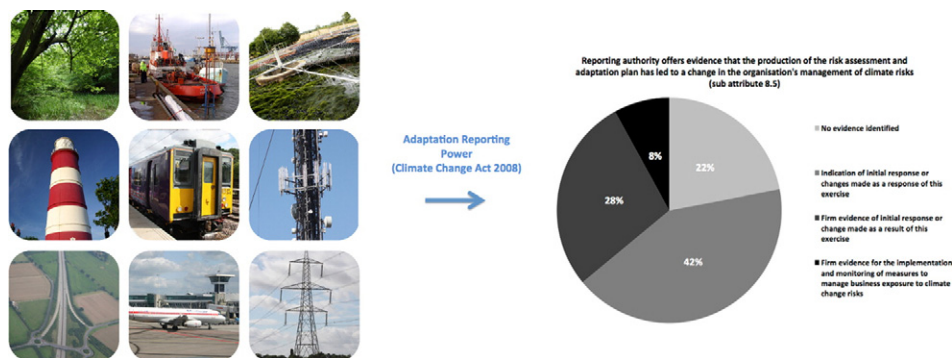
^b University of Oxford, UK Climate Impacts Programme (UKCIP), Oxford OX1 3QY, UK

^c Formerly Environment Agency, Climate Ready, Wallingford, Oxfordshire, UK

HIGHLIGHTS

- We present an extensive analysis of the Climate Change Act (2008) Adaptation Reporting Power
- The process has triggered engagement, organisational change and adaptation actions across key business sectors vulnerable to climate change
- Supporting and engaging with reporting authorities during the reporting process and evaluating the adaptation reports represent challenges
- The Adaptation Reporting Power potentially provides the basis for similar initiatives in other countries for delivering organisational adaptation
- Research exploring its long-term legacy and alternative reporting strategies is required

GRAPHICAL ABSTRACT



ARTICLE INFO

Article history:

Received 3 April 2016

Received in revised form 13 September 2016

Accepted 13 September 2016

Available online 14 October 2016

Editor: D. Barcelo

Keywords:

Adaptation
Climate change
Organisation
Risk
Resilience

ABSTRACT

There is increasing recognition that organisations, particularly in key infrastructure sectors, are potentially vulnerable to climate change and extreme weather events, and require organisational responses to ensure they are resilient and adaptive. However, detailed evidence of how adaptation is facilitated, implemented and reported, particularly through legislative mechanisms is lacking. The United Kingdom Climate Change Act (2008), introduced the Adaptation Reporting Power, enabling the Government to direct so-called reporting authorities to report their climate change risks and adaptation plans. We describe the authors' unique role and experience supporting the Department for Environment, Food and Rural Affairs (Defra) during the Adaptation Reporting Power's first round. An evaluation framework, used to review the adaptation reports, is presented alongside evidence on how the process provides new insights into adaptation activities and triggered organisational change in 78% of reporting authorities, including the embedding of climate risk and adaptation issues. The role of legislative mechanisms and risk-based approaches in driving and delivering adaptation is discussed alongside future research needs, including the development of organisational maturity models to determine resilient and well adapting organisations. The Adaptation Reporting Power process provides a basis for similar initiatives in other

* Corresponding author.

E-mail address: s.jude@cranfield.ac.uk (S.R. Jude).

countries, although a clear engagement strategy to ensure buy-in to the process and research on its long-term legacy, including the potential merits of voluntary approaches, is required.

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

It is increasingly recognised that organisations need to adapt to climate change, adopting risk and resilience approaches and incorporating climate change and extreme weather events into their corporate strategies and decision making (Linnenluecke and Griffiths, 2010; Tompkins et al., 2010; Beermann, 2011; Winn et al., 2011; Linnenluecke et al., 2012; Weinhofer and Busch, 2013). The Intergovernmental Panel on Climate Change (IPCC) defines adaptation as ‘*adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities*’ (McCarthy et al., 2001, p.982). Adaptation may be technological, behavioural, financial, institutional or informational in nature, and occur in a variety of forms, including anticipatory, passive, reactive, proactive, autonomous, spontaneous or planned/purposeful (Carter et al., 1994; Smith, 1997; Smit et al., 2000; Fankhauser et al., 1999; Smith and Lenhart, 1996; Smit et al., 2000). In addition, Tompkins et al. (2010, p.630) have classified adaptation actions as a) building adaptive capacity - where activities may include research, planning, networking, awareness raising, training and advocacy; b) implementing adaptation, and c) developing supportive legislative and policy frameworks. Elsewhere, Hertin et al. (2003, p.287) have identified flexible risk management processes, effective internal communication and external relationships and strong in house expertise as key features of adaptive capacity. Early and precautionary adaptation is important, as are iterative risk management processes and flexible adaptive responses, accounting for uncertainty to prevent the potential risk of maladaptation (Fankhauser et al., 1999; Willows and Connell, 2003).

Numerous adaptation drivers have been identified in organisations including real or perceived climate change, legislation, regulation and policy, flooding, risk management and cost savings, and population pressures (Tompkins et al., 2010; Wilby and Vaughan, 2011). Experience of stimuli, such as extreme events, has been recognised as providing the impetus for adaptation actions (e.g. Smit et al., 2000; Berrang-Ford et al., 2011; Wilby and Vaughan, 2011). However, it is also acknowledged that attributing tangible actions to broader motives or adaptation goals is challenging (Fankhauser et al., 1999; Tompkins et al., 2010; Dupuis and Biesbroek, 2013). Tompkins et al.’s (2010) review of adaptation activities in the UK highlighted that many observed adaptations are not planned as adaptive responses to climate change. Indeed, many are not climate change specific; instead representing unintentional or secondary benefits arising from activities unrelated to climate change (e.g. planned infrastructure investment), with co-benefits, such as cost savings, frequently used to justify them (Tompkins et al., 2010; Smit et al., 2000; Smit and Wandel, 2006). Elsewhere, the risks extreme weather events pose to organisational survival have been highlighted (Linnenluecke and Griffiths, 2010; Linnenluecke et al., 2012), with Wilby and Vaughan (2011) noting how organisations have traditionally responded to weather and climate shocks rather than implementing long-term measures to reduce climate risks.

Detailed evidence of how adaptation is facilitated, implemented and reported is lacking, as are examples of practical adaptation actions (Arnell, 2010; Berkhout, 2012; Berrang-Ford et al., 2011; Ford et al., 2011; Linnenluecke et al., 2013). Where studies do exist, they are predominantly constrained to small numbers of organisations or sectors (Arnell and Delaney, 2006; Berkhout et al., 2006; Hertin et al., 2003; Weinhofer and Busch, 2013), or they consist of literature and document reviews (Tompkins et al., 2010; Berrang-Ford et al., 2011; Linnenluecke et al., 2013). Whilst Wilby and Vaughan (2011) identified a series of hallmarks potentially associated with adapting organisations, there is

a paucity of research investigating whether and indeed if adaptive capacity is translating into actual adaptation action (Berkhout, 2012; Berrang-Ford et al., 2014) at all levels from individual organisations to whole sectors. Furthermore, studies such as Tompkins et al. (2010), who argued that a climate change adaptation transition has commenced in the UK, with niche activities starting to be mainstreamed, are now out-dated due to rapid changes in policy and associated organisational response.

Significant research questions remain and challenges exist with comparing and measuring adaptation actions and effectiveness within and across cases (Dupuis and Biesbroek, 2013; Berrang-Ford et al., 2014). Thus research investigating how adaptation activities are being facilitated at all levels from individual organisations to whole sectors is needed (Arnell, 2010). In particular, practical evidence of, and insights into, the adaptive capacity and corporate adaptation actions being undertaken by organisations (e.g. mainstreaming (Smit and Wandel, 2006), long term investment, climate proofing of assets and monitoring), any associated challenges and barriers (e.g. regulatory), and whether they exhibit the hallmarks of adapting organisations (Weinhofer and Busch, 2013; Wilby and Vaughan, 2011) would be beneficial. For example, Tompkins et al. (2010) and Weinhofer and Busch (2013) have postulated that framing climate change through a risk management rather than sustainability lens may prove effective, whilst Fankhauser et al. (1999) emphasise the need for investment decisions to account for climate change and its associated uncertainties. Furthermore, questions remain in relation to the extent to which organisations have appropriate and adequate skills, knowledge and expertise to guide and implement adaptation actions (Fankhauser et al., 1999). Here the extent to which individualistic or collective capacity building is occurring, particularly with regards sector specific and cross-sector guidance and engagement is occurring would benefit from further exploration (Wilby and Vaughan, 2011). Finally, alongside risks, the potential benefits and opportunities that climate change offers organisations require investigation (Smit et al., 2000; Weinhofer and Busch, 2013; Winn et al., 2011). However, very little is currently known about these fundamental issues in practice.

The authors are interested in evidence of practical adaptation. In this paper, we directly address such knowledge gaps, using the first round of the Adaptation Reporting Power (ARP) – part of the Climate Change Act (2008) (United Kingdom, 2008) – to explore the insights that the ARP process has provided into the range of climate change risk and adaptation activities that organisations across key critical sectors are undertaking, and consider the benefits and challenges encountered during the ARP process and their implications for those considering implementing similar climate change risk and adaptation reporting initiatives. We examine whether legislative mechanisms for corporate climate change risk and adaptation reporting, and the framing of climate change as a business risk, offer a means for driving greater consideration of climate change risk, adaptation within organisations, including organisational change, the development of adaptive capacity, and the delivery of practical adaptation outcomes. Thus the paper will help to inform pragmatic strategies for organisational adaptation and resilience.

1.1. The Adaptation Reporting Power

The UK Climate Change Act (2008) (United Kingdom, 2008) introduced legally binding frameworks for reducing greenhouse gas emissions and for adapting to climate change, through the introduction of a legal requirement to undertake a Climate Change Risk Assessment (CCRA), develop a National Adaptation Programme (NAP), and an

Download English Version:

<https://daneshyari.com/en/article/6320348>

Download Persian Version:

<https://daneshyari.com/article/6320348>

[Daneshyari.com](https://daneshyari.com)