



## Editorial

# Place, well-being, and fairness shape priorities for adaptation to climate change



## 1. Adaptation: familiar dilemmas

Institutions and authorities are planning for the challenge of climate change. In terms of adaptation, they want to know what to invest in, what principles to apply, and how to prioritize. For example, following high levels of damage to property and infrastructure by Storm Desmond in December 2015, the UK government has embarked on a Flood Resilience Review with the stated aim of assessing the state of climate and risk modeling, the resilience of critical infrastructure, and future investments. As is common in such situations, the focus on risk assessment and resilient infrastructure has the potential to ignore deeper issues such as the distribution of the burden of risk and the potential for resilience to be built within the underlying social-ecological systems.

The demand for guidance is partly a result of national planning and policy frameworks being the most obvious way to organize adaptation. To be sure, audits of adaptation action have often shown that public and government sectors are far in the lead, as one would expect (Tompkins et al., 2010; Biesbroek et al., 2010; Bierbaum et al., 2013). But it should not be assumed that the national policy level is the only arena for adaptation: actions to implement proactive conservation, land use changes and behavioral adaptations are common from individuals, local government and relevant planning bodies. Private adaptation to manage water resources, for example, in the eastern US is highly constrained by public sector regulations. Milman and Warner (2016) show how private actions can, in some circumstances, stimulate synergistic public sector responses. So the social processes of adaptation need to account for the agency of individuals, collective actions, private sector actions, and other forms of strategic response.

Adaptation to climate change is not a unique, nor indeed a wicked, problem. Interventions on adaptation to climate change face the same constraints that policy makers deal with every day. Adaptation means dealing with uncertain costs, uncertain and incommensurable outcomes, entrenched vested interests, lack of public engagement and complex environmental and social dynamics (Dovers, 2009). Clark (2014) proposes that these characteristics mean many areas of public policy, such as health-care, pensions, nuclear waste, food security, drug regulation – and now adaptation – are put into what he calls the ‘too difficult box’ and so stalled.

When faced with such problems, social science analysis tends to respond with warnings to respect and take account of context and history. Indeed, there is good reason to take account of context and to be explicit about scale (Toole et al., 2016). As Ostrom (2007) shows, interventions implemented at inappropriate scales are highly limited in effectiveness and create unforeseen consequences.

Here I argue that implementation of all types of interventions seeks balance between elements of context on the one hand and principles of political economy. The political economy becomes evident in the handling of three issues: place and identity and its relationship to value; well-being and how it is understood and measured; and fairness as perceived, experienced and measured.

## 2. Place, culture and identity

Changes in climate are outside the control of individuals but are experienced by people in places where they reside, work and in their places of recreation. Documenting the relationship between physical space and the human condition is the central concern of a wide range of scholarship, notably in human geography. There is a wide diversity in methods and models across social science for explaining the role of place in identity and of place attachment in how people perceive the world and make decisions about risk. All those lines of evidence and methods show, in effect, places give meaning to lives and hence place attachment is a core element of individual well-being (Hess et al., 2008).

Relationships between place and well-being are diverse: people have positive, negative, ambivalent and ever changing relationships with where they live that affect well-being. Nowok et al. (2013) for example show that perceived well-being changes in the months and years before and after individuals migrate from one place to another. First their welfare dips in the period leading up to migration, then eventually returns and often surpasses previous welfare levels. That study of UK migration does not formally explain why the measured changes in perceived well-being occurred: the causation between moving and happiness not established. But much evidence from social psychology and geography has shown how experience ascribes value to places and that place attachment changes over time (Lewicka, 2011).

So how is climate change adaptation limited or enabled by place and identity? There are two principal issues: first how the

experience of weather-related hazards directly affects well-being and intentions to adapt, and second how localized experience translates into understanding of climate change as a priority. Those directly affected by weather-related hazard such as wildfire, drought, heatwave and flood experience impacts as having negative and often traumatic consequences for their well-being as well as their sense of place. Many studies on flood impacts, for example, document how individuals are less certain about the future, experience dislocation, and are less secure through the violation of their homes (Harries, 2008; Carroll et al., 2009). Such impacts of weather-related hazard affect adaptation directly. Perceptions of powerlessness and low self-efficacy in those circumstances translate into a lack of action and hence adaptive capacities are not used or realized. The experience of disruption of place can, therefore, in itself constitute a limit to adaptation (Adger et al., 2009).

The second dimension of place relates to whether individuals attribute weather-related impacts to wider climate change. There is a widespread assumption that if climate change becomes real in terms of experience of its impacts in places that are familiar, then this will amplify awareness of climate risks, and the demand for adaptation and emission reductions. 'Bringing climate change home' is indeed the principal explanation for how experience of weather-related hazards influences pro-environmental behavior. Wolf et al. (2009), for example, show how issues of making communities resilient to the impacts of climate change and mitigating emissions are intertwined in Canadian rural communities with the notions of duty to others and ecological citizenship. Spence et al. (2011) showed more directly that surveyed individuals in the UK who had experienced flooding both accepted climate change as real, and thought their mitigation efforts were worthwhile.

Bringing climate change home or giving it meaning in specific places, in some ways, also reduces the psychological or moral distance between cause and effect in climate change. That moral distance between cause and effect is widely portrayed as the single most important moral and social dilemma of climate change (Singer, 2011). If moral distance is reduced, then it follows that making climate change place-specific could be an important strategy of public and political engagement (Weber, 2006). But Brügger et al. (2015) highlight one major flaw in this logic. Relating climate change to familiar places (so-called proximizing strategies), only works inasmuch as places have positive associations. And as Devine-Wright et al. (2015) and others show, people have ambiguous relationships to place at local, national and global levels in the context of their responsibility for environmental sustainability. Hence climate change adaptation is shaped and often constrained by how individuals and communities relate their familiar places and how they make sense of change.

### 3. Well-being and values

The distribution of benefits and burdens from implementing adaptation depends on who values what is being affected. Building flood defenses along rivers, for example, affects property values, insurance, downstream communities, access to the river for people and wildlife. Hence virtually all adaptation interventions have complicated benefits and trade-offs. Most adaptation research makes the trade-offs legible by focusing on the measurable and commensurable elements—such as by using economic dimensions and converting additional values at risk to make them commensurable with the economic dimensions. But there are key issues of dealing with irreversible loss and with asymmetry between loss and gains, that make commensurability illusory in many circumstances. The loss of cultural heritage through the destruction of places that generate meaning across generations, for example,

cannot be reconciled with gains for others. Caney (2010) and others argue that the nature of the gains matters and that economic gains beyond those of core needs are not comparable with loss that affects rights of those displaced or dispossessed.

Dilemmas of incommensurability are, of course, well known outside of climate change adaptation. In order to be practical, the answer is to generate decision-making processes that reveal what is valued through discourse (Dryzek et al., 2013). Trade-offs in adaptation can indeed be resolved, and there is an increasing practical focus to find ways to include diverse perspectives in such processes (Barnett et al., 2014). Evidence suggests that resolution is accomplished through making decision-making structures accountable, inclusive, and giving voice to those who deserve representation and recognition: the all affected principle. Data on what is meaningful to individuals, however, reveals that the future is as important as the present in how impacts are articulated (Fincher et al., 2014) and that narrative matters (O'Neill, 2009).

Well-being is therefore highly related to place, and to time. Evidence on heatwave risk, for example, shows how identity takes precedence over risk. Abrahamson et al. (2009) documented how elderly individuals in England denied the importance of heatwave risk to them personally even if they are objectively susceptible to health risks from exposure to sustained heat. They did so because the acceptance of risk challenged their ability to live independently and hence directly affected their own perceived well-being.

Many elements of well-being are relational rather than individual, and hence themselves defined in context. Relational aspects of well-being involve interactions of people with each other and with the landscapes and nature that generate meaning and responsibility (see Chan et al., 2016). In research with individuals affected by floods in Somerset in England, for example, we show how the relational aspects of well-being can be positive in the face of disruptive and highly traumatic circumstances with the spirit of community and the development of new forms of community engagement being particularly notable (Walker-Springett et al., 2016; see also Aldrich, 2012).

### 4. Fairness perceived and experienced

If adaptation is to be sustainable, it has to be perceived to be legitimate, with legitimacy springing from the process by which decisions are made. Public discourse on political controversies is most often articulated as one of fair distribution: from issues of tax havens, through to public sector pay, or welfare provision. Public discussion of climate change too, has a significant fairness meme. Discussions focus on the unfairness of the distribution of burdens such as how energy prices affect those in fuel poverty; through to how impacts of climate change are unfairly distributed socially and geographically.

But there is growing evidence to back the claims that climate change needs to be recast as a problem beyond blame and responsibility, to one of moral rightness. Jamieson (2007), for example makes the case that because of the unusual and unprecedented nature of the climate change challenge, that the only chance of public policy aligning to climate realities is a new formulation of our relationship to nature. New work shows that when it comes to climate change adaptation and resilience, much public talk is indeed in the moral terms of solidarity, victimhood and precaution (Adger et al., 2015). Our analysis shows that when a cross-section of the UK lay public discusses adaptation, there is a diversity of moral arguments put forward and they pervade the talk. For example, respondents discuss solidarity with flood victims in rural areas, even when media discourses portray rural residents as wealthy and having made lifestyle choices that put them in harm's way.

Fairness is important because of adaptation interventions directly affect their public support and the social license of governments to act. And public support is critical given the public good nature of many adaptations that involve sacrifice and sharing of burdens. Insurance schemes, for example, involve protecting one population more than another, based on their exposure or vulnerability. In effect, solidarity of populations with each other and with nature enhances legitimacy and enables policy

## 5. Conclusion

Issues of place, well-being, and fairness affect how decisions emerge and gain legitimacy and determine the outcome of who benefits and who pays. Who benefits and who pays for adaptation is important intrinsically. But it is also important because when the burden of adaptation is perceived to be unfair, then action will not be legitimized and interventions simply will not happen.

These issues highlighted here shape the priorities for adaptation and can transform the political economy of its implementation. They make it less about abstract beliefs in science, blame and difficult national planning processes to be more about placing climate change in local contexts and framing it as an issue of solidarity to enable action across scales. Incorporating place, well-being and fairness are analytical steps on that road.

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W. Neil Adger

*Geography, College of Life and Environmental Sciences, University of Exeter, Rennes Drive, Exeter EX44RJ, UKE-mail address: n.adger@exeter.ac.uk (W. Adger).*

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