

ADAPTION TO CLIMATE CHANGE: From Resilience to Transformation

Mark Pelling

London; New York: Routledge, 2011, 203 pp.
paper, ISBN: 978-0-415-47751-2

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The book's back cover claims: "The impacts of climate change are already being felt. Learning how to live with these impacts is a priority for human development". These sentences accurately betray the central purpose of the book, which is to present a comprehensive analysis of the social dimensions to climate change adaptation.

The book is divided into four parts. Part I *Framework and theory* contains two chapters that present theory surrounding the social aspects of adaption research. Chapter 1: *The adaptation age*, introduces adaptation as a process rather than a status. One cannot arrive at being adapted to climate change. Rather, one can move toward adaptation. This perspective explains the choice of subtitle: from resilience to transformation (explained later) which demonstrates that adaptation is something that not only adjusts to change, but is, itself, a process of change. The bulk of the opening chapter sets out a conceptual framework which claims that adaptation is driven by four questions: 1) *what to adapt to?*; 2) *Who or what adapts?*; 3) *How does adaptation occur?*; and 4) *What are the limits of adaptation?* These are surprisingly simple questions with very complex answers. The book responds to these four questions from a perspective of wishing to understand, rather than measure adaptation. The central emphasis, then, is one of critical assessment, and of interpretative analysis of contested discourse, rather than of presenting discrete facts and procedures to be "nailed down" for adaptation to be said to have taken place.

Chapter 2: *Understanding adaptation* begins with a provocative quote by Paulo Friere that warms us that without a critical awareness, adaptation is hostage to being limited to efforts that promote action to survive with, rather than seek change to, the social and political structures that shape life chances. Pelling wants the reader to really *understand* adaptation not just jump to fixing problems, by recognizing it is fundamentally about transforming our choices, and building capacity to make those changes. I think that if the reader cannot find the time to read the whole book, he or she should at least read this chapter. While relying on well-documented sources, this chapter explores antecedents to adaptation, as well as what is meant by resilience and thresholds to transformational change. This chapter contains the healthy appetizer for the substantial meat of the book that follows.

Part II *The resilience-transition-transformation framework*, contains three chapters. Chapter 3: *Adaptation as resilience* sets out a vision of adaptation as resilience by describing it in terms of

social learning and self-organization, and by outlining pathways of adaptation. I found Figure 3.1 and Table 3.1, which presents five adaptive pathways, to be particularly useful in grasping Pelling's robust theoretical, analytical and heuristic contributions. Chapter 4: *Adaptation as transition* is about incremental social change. It explores vital questions of risk, governance regimes and socio-technological transition required for adaptation. Governments at all levels and society at large grapple with how to adapt to climate change. Pelling warns that planned innovations, and adaptation in society may exacerbate existing inequalities or generate new ones. Again the point is made; there are no easy solutions to the complex problems associated with climate change. Chapter 5: *Adaptation as transformation* is about new rights claims and changes in political regimes. The socio-contract and human security issues are discussed. Drawing on Jean-Jacques Rousseau, Ulrich Beck, Jürgen Habermas and a host of others, the heart of the theoretical discussion on risk, modernity and society are found in this chapter. Pelling manages to neatly tie these together to give support to his framework and ends the chapter discussing how disasters are conceived as catalysts and tipping point for this vision of adaptation-as-transformation. Good reading indeed.

Part III Living with climate change contains three detailed case studies that support the resilience-transition-transformation framework in three separate chapters. Chapter 6: *Adaptation within organisations* looks at the local-scale institution and organizational levels by exploring the Environment Agency and a farmers' support group in the UK. The quote at the beginning of the chapter says it all - relationships and not structures are what counts for adaptation. Anyone reading this chapter will be able to make the connections – at the ground level – with any number of organizational situations. Chapter 7: *Adaptation as urban risk discourse and governance* uses urban cases in Mexico to examine how the discourses of adaptation in four communities of various sizes (populations range from 1.3 million to 1,000) can either challenge or further entrench development inequalities and failures. Some empirical evidence in this chapter provides substance to the earlier theoretical discussions. Chapter 8: *Adaptation as national political response to disaster* examines national-level policies and methods through three case studies (Bangladesh, Nicaragua , and USA). Each case shows the technical, but also political, nature of adaptation. Disasters brought by cyclones and hurricanes tell the story of adaptation politics. Political ramifications following the 1970 Bhola Cyclone in East Pakistan (now Bangladesh) and missed opportunities for transformation are analyzed following the wake of the 1998 Hurricane Mitch storm in Nicaragua and the 2005 Hurricane Katrina storm in New Orleans.

Part IV Adapting with climate change concludes the book by discuss how to adapt with climate change (does this imply it may be possible to adapt without climate change?) explains too often adaptation is too narrowly framed. Chapter 9 outlines the research and policy development needs that arise from the central argument that adaptation is a social, cultural and political as well as a technological process. Moving from theory to action will not be easy.

In short, *Adaptation to Climate Change*: from resilience to transformation is a well-researched, well-written analysis of the social dimension of climate change adaptation. Carefully blending theoretical explanations and empirical evidence is probably the most comprehensive treatment of the subject to date. It is a timely book which will be helpful for the foreseeable future. I wish for all involved in climate change research and policy-makers to read this book. It should be used as required reading in university-based courses at the upper undergraduate and graduate level in climate change, geography and development studies.