



Addressing Tipping Points for a Precarious Future

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(p.xv) Preface

This book originates from a 2011 conference generously funded by the British Academy and the Global Environmental Change Committee of the Royal Society.

The aims of the conference were to address and answer three questions:

1. Are we designing our governing institutions for sufficiently flexible, yet equitable, adaptation and resilience in the face of possibly unknowable, but potentially catastrophic, events or combinations of events in both Earth systems and social systems?
2. Are we creating, year by year, a set of governing arrangements that are brittle, fragmented, and increasingly vulnerable, in the face of potentially convulsive change?
3. Is it possible, creatively and purposefully, to shape our governing ways, our cultural mores, our economic approaches, and our commitments to long-term social justice, to prepare society for transformational tipping points in a benign and caring manner in sufficient time?

The conference was preceded by a scene-setting workshop held in the British Academy in January 2011. This greatly clarified the issues, and enabled the participants to feel a common purpose. It encouraged authors to draft their initial contributions, and to sense the connections between their arguments. It set the scene for the complete agenda for the subsequent April conference held in the Kavli Centre and managed by the Royal Society.

The great value of the Kavli conference was to bring together a wide range of scientists, social scientists, and humanities specialists to combine their experiences and expertise for understanding the many interpretations of tipping points. These facets included:

- the physical and dynamical properties of Earth system processes;
- the scientific understanding of the early warnings of reduced resilience;
- the social sciences of economics and governing which suggest how the messy management of human affairs may reach brittle stress points; **(p.xvi)**
- the liberating interaction of the two sets of stress-related physical and social processes through the media of the arts and narrative;
- the moral, spiritual and cultural dimensions of the scope for coping with abrupt change.

One of the very rich aspects of the conference was the ways in which the creative minds of the historian, theologian, and novelist can deal with uncertain but possibly sudden shifts in these systems – the generation of convulsive combinations of developments. This is the skill of those who can craft deep metaphors and the ‘storyline’ – lessons from what has happened before, and about the strength of moral positioning over how to adapt fairly and securely.

The conference also received ideas and commentary from the worlds of business, of media and communication, of diplomacy, and of governing in the broadest sense. These perspectives added greatly to the richness of the discussions and of the nuances of analysing both the contours of tipping points and the answers to the questions of whether we are creating inappropriate governance arrangements. Indeed, it is very likely we are not prepared culturally or politically for adaptation to combinations of tipping points, which could indeed be generated within a few decades. We seem to be creating conditions of maladaptation and dangerous ‘lock-in’. One outcome is that, unless the most successful experiences of adaptive learning spontaneously and imaginatively arising from many parts of the planet are fully reported and understood, humanity may not be able to adapt with sufficient social justice to enable future societies to cope fairly and tolerably with disruptive change.

This book is primarily designed to place tipping points in their scientific, economic, governmental, creative, and spiritual contexts. Its contributions cover the various interpretations and metaphors of tipping points, the scope for anticipating their onset, and the capacity both for resilience in the face of their impending arrival and for better ways of communicating and preparing societies, economies, and governments for accommodating to them and hence to turn them into responses which buffer and better human well-being. Above all, the possibility of preparing society and its governing institutions for creative and benign ‘tips’ provides a unifying theme for the book.

The big lessons from the conference are these: that we can assess tipping points and critical thresholds on many dimensions; that we can begin to see the early warnings of their appearance; and that we do have time still to attend to the conditions which answer Question 3. But at best, we only **(p.xvii)** have this decade to begin in earnest this comprehensive adjustment. This volume is therefore very timely. The widespread dismay over the prevarication and seeming inability of world heads of state (many of whom did not even attend) to address the plight of all peoples on this disrupted planet at the UN Conference on Sustainable Development (‘Rio+20’, held in Rio de Janeiro in June 2012) is leading many to the dangerous conclusion that political leadership is unavailable. The ‘wicked problems’ of climate disruption and unsustainable use of ecosystems simply defeat conventional politics, whether of the democratic or autocratic worlds, dependent as both are on evidently unsustainable patterns of growth and exploitation of resources. Despite some recognition for a transition to a so-called ‘green’ economy, though not a sustainable one, there is every sign that the very characteristics of markets, politics, and inequalities which have led to the current global recession and social malaise are being blindly pursued, apparently because there is neither vision nor the willingness to change course. At an Oxford University conference in July 2012 on resource security and sustainability, David Miliband MP, a former Secretary of State for the Environment, Food and Rural Affairs in the UK, argued that we must hold fast to faith in democracy as the best available political model for achieving the transition to sustainability. But he was also driven to admit that among the policymaking elites of the West there was still far too little will-power, passion, or conviction behind sustainable development. Too many politicians, he concluded, in their hearts

and heads do not yet accept the diagnosis of unsustainability and the approach of tipping points, still less wish to act on it.

The book is divided into eight Parts, which consist of 'chapters' and 'commentaries', numbered sequentially. The fourteen main chapters were all presented at one or other of the conference sessions, where they were discussed in detail. The other contributions are designed as short commentaries. For the most part these were commissioned from people who were not at the conference sessions. The text is edited to create cohesion between the contributions so that the various nuances of science, social science, and humanity perspectives are enabled to merge. The intended readership is informed policymakers, policy analysts, researchers, and those in the general public who seek to understand what possible future outcomes they and their offspring may face before this current century passes its halfway stage. The text is also shaped to offer a combination of distress at what may happen if the warnings are not heeded, and hope that there is time to change course, admittedly in an increasingly difficult **(p.xviii)** manner if conscious delay is continued, and that the ultimate prize is worth sacrificing and fighting for. Humanity has triumphed over adversity, though not always have earlier civilizations succeeded. What is special now is that the whole of humanity faces the same awkward dilemmas, not just the overambitious few. Having edited this book we are not confident that there is a happy outcome, as the disruptive journey has not yet been sufficiently altered to offer confidence that real learning is taking place. Readers are encouraged to make up their own minds when reading the pages that follow.

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