

Handbook of Disaster & Emergency Policies & Institutions



John Handmer & Stephen Dovers

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Contents

<i>List of Figures, Tables and Boxes</i>	<i>viii</i>
<i>Acknowledgements</i>	<i>x</i>
<i>List of Acronyms and Abbreviations</i>	<i>xii</i>
<i>Introduction: The Context and Aims of this Book</i>	<i>xiv</i>
 PART I CONSTRUCTING THE PROBLEM	 1
1 The Nature of Emergencies and Disasters	3
Overview of disaster trends	5
Emergency and disaster institutions	6
The nature of disasters and emergencies: Cause and effect	8
Evolution of emergency management: From ‘acts of God’ to socially constructed disasters	11
Illustrative vignettes	14
Key challenges	25
 2 The Nature of Policy and Institutions	 30
Core concepts and terms	31
Traditions and trends in policy analysis	33
Policy styles and the political environment	41
Emergencies and disasters as policy and institutional problems	43
Reconciling policy with emergencies and disasters	45
 PART II CONSTRUCTING THE RESPONSE	 47
 3 A Policy and Institutional Framework for Emergencies and Disasters	 49
Policy cycles meet emergency risk management	49
A framework for policy and institutional analysis	53
Using the framework	55
 4 Owning the Problem: Politics, Participation and Communication	 59
Policy and politics	59

	Who? Defining 'community'	60
	Why? Purposes and degrees of participation	64
	How? Options for community engagement	69
	Communication: The lifeblood of participation	76
	Communication challenges	79
	Conclusion	80
5	Framing the Problem: Identifying and Analysing Risk	83
	Problem framing	83
	Cause–effect linkages	86
	Pervasive uncertainty	89
	Attributes of emergency management policy problems	91
	A typology of disasters and emergencies	93
	Routine	94
	Non-routine	94
	Complex emergencies	95
	The risk standard	97
	Hierarchy of goals, issues and problems	100
	Conclusion	101
6	Responding to the Problem: Policy Formulation and Implementation	103
	Broad policy choice: Generic resilience or specific instruments?	103
	Generic approaches to hazards management	105
	Specific approaches to hazards management	106
	For crisis response: Flexibility and adaptability	107
	Policy problems and policy instruments	109
	Policy instruments and styles for implementation	110
	Policy styles and attributes required for implementation	116
	Implementation attributes	120
	Conclusion	122
7	Not Forgetting: Monitoring, Evaluation and Learning	125
	Uncertainty, time and learning	125
	Policy and institutional learning: Purposes and forms	128
	Basic information capture	136
	Evaluation: The precondition for learning	137
	Research and education	140
	Prospects for learning	142
8	Institutional Settings for Emergencies and Disasters: Form, Function and Coordination	145
	Institutions: The key to common endeavours	145
	Institutions and emergencies: Status and issues	148
	Purpose, form and principles	154
	Learning, law and liability	158
	Conclusion	159

PART III CONSTRUCTING THE FUTURE	161
9 Future Prospects	163
How disastrous a future?	163
Key challenges	167
Prospects: Anticipation, resilience and adaptation	169
<i>References</i>	<i>171</i>
<i>Index</i>	<i>179</i>

List of Figures, Tables and Boxes

Figures

2.1	Linear versus cyclic constructions of policy	36
3.1	(a) Framework for environment and sustainability policy	51
	(b) The extended emergency risk management process	52
3.2	Framework for policy and institutional analysis for emergencies and disasters	58
5.1	The Australian–New Zealand risk management process	99

Tables

1.1	Hierarchy of activities in emergencies and disasters	7
1.2	Trends in emergency management	13
1.3	The book's themes and illustrative case studies	14
2.1	Approaches to policy and politics	35
2.2	Key components of the governing state	40
4.1	Defining community	62
4.2	Main purposes of public participation	66
5.1	Emergency management typology by attributes	92
5.2	Attributes of complex unbounded problems emerging at the more difficult end of 'complex' emergency management problems	97
5.3	Hierarchy of goals, issues, problems and instruments	101
6.1	A menu of policy instruments for emergencies and disasters	112
6.2	Criteria for selecting policy instrument	115
6.3	Coercive, cooperative and exhortative policy designs	117
7.1	Forms and purposes of policy learning	130
8.1	Components of the institutional system (expanding on Table 2.2), with typical roles regarding emergencies and disasters	149

Boxes

1.1	Hurricane Katrina, New Orleans, US	14
1.2	Longford gas explosion, Victoria, Australia	16
1.3	The South Asian tsunami	17
1.4	Wildfire evacuation in Australia	18
1.5	Floods at Nyngan, New South Wales, Australia	20
1.6	Mozambique floods of 2000	20
1.7	Flooding in The Netherlands, 1993 and 1995	21
1.8	Refugees and a volcano in Goma, Democratic Republic of Congo	23
1.9	London smog: Long antecedent, slow response	24

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Work on the book was disrupted at times by the very emergencies we write about, although thankfully not ones of great tragedy. Hot dry conditions helped to ensure that New Year's Day 2006 was one of many extreme wildfire days in Victoria and kept one author busy as a volunteer fire-fighter through early 2006. Continuing drought and very hot weather saw an exceptionally early start to the fire season for the 2006 to 2007 Australian summer. Again, fire-fighters were busy, albeit largely

on standby in the Mount Macedon area. A major urban interface fire during early October in Hobart meant unscheduled fieldwork. The other author experienced a summer and autumn of unusually intense storm activity, involving routine clearance of blocked and flooding drainage systems. One storm stalled the central business district (CBD) of Australia's capital city and damaged dozens of buildings at his university, including an overnight flooding of his computer. Such events focus the mind on trends influencing the incidence of emergencies in our lifestyles, in the Earth's climate and in policy styles seen in response.

In future, it is inevitable that societies will face more and more emergencies and disasters, and regrettably it seems similarly inevitable that the severity of these will increase in terms of impacts on people, livelihoods, economies and environments. Emergency management and disaster policy must rise to that challenge. This book seeks to provide focus and ideas on the broader policy and institutional settings that serve to enable or constrain what individuals, communities and emergency managers do to handle emergencies in the hope that their crucially important tasks can be made easier and more effective. This book is dedicated to those people.

John Handmer
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July 2007

List of Acronyms and Abbreviations

ADPC	Asian Disaster Preparedness Centre
AFAC	Australasian Fire Authorities Council
BBC	British Broadcasting Corporation
CBD	central business district
CFU	community fire unit
CSIRO	Commonwealth Scientific and Industrial Research Organization
CUP	complex unbounded problem
DEFRA	UK Department for Environment, Food and Rural Affairs
DHS	US Department of Homeland Security
EMA	Emergency Management Australia
EMATrack	a database maintained by Emergency Management Australia
ERM	emergency risk management
FEMA	US Federal Emergency Management Agency
GBE	government business enterprise
GDP	gross domestic product
HDC	highly developed country
IFRC	International Federation of Red Cross and Red Crescent Societies
IPCC	Intergovernmental Panel on Climate Change
ISDR	International Strategy for Disaster Reduction
ICT	information and communication technology
km	kilometre
LDC	least developed country
MAFF	UK Ministry of Agriculture, Fisheries and Food
MCA	multi-criteria analysis
MDC	medium developed country
M&E	monitoring and evaluation
NGO	non-governmental organization
NPM	new public management
NSW	New South Wales
PNS	post-normal science
UCL	University College London
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development

UNICEF	United Nations Children's Fund
UN-ISDR	United Nations International Strategy for Disaster Reduction
US	United States
WSSD	World Summit on Sustainable Development

Introduction:

The Context and Aims of this Book

It is too easy to be critical of emergency managers. In a major event, for them the stakes are high, with lives and economies at immediate risk, resources inadequate, and political and media scrutiny intense, interfering and unforgiving. Information will be inadequate, modelling ambiguous and rumours rife. Emergency management is often tested in public with immediate feedback, and a constituency dedicated to locating and punishing the blameworthy.

Disasters challenge societies and governments. They can undermine the legitimacy of government by creating apparent chaos and disruption, and by highlighting the weaknesses and limits of government. They can result in deaths and destruction, and disruption to every aspect of society. Poorer countries may find that 'the consequences of disasters erase years of development and take years to reverse' (Egeland, 2006). Such events also provide many opportunities, with the media, political and local constituencies generally endowing special status on those who show leadership and empathy with the affected. As short lived as this topicality and celebratory status may be, there are clear political benefits from many disasters. Paradoxically, the less visible process of strategic policy development and implementation for disaster reduction may carry little political reward, and its success in reducing the impacts of events that might otherwise become disasters may even result in budget cuts and reduced status and profile for those involved. This is because the media and political rewards are (not unnaturally) skewed towards the heroes of response, rather than towards strategic planners.

This all points to the desirability of developing policy that serves a number of aims – national and local; social, economic and environmental; focused on preparedness, response and long-term recovery – and that is flexible enough to cope with shifts in community and political priorities, while ensuring a high positive media and political profile. Such strategic policy is dependent on the suitability of the institutional settings within which policy is formulated, developed, implemented and monitored, and within which it evolves. Emergency management is the necessary and crucially important 'sharp' end of our societies' response to disasters, but is constrained or enabled by these policy and institutional settings. It is the intent of this book to contribute to emergency management by focusing on what we believe to be those overlooked policy and institutional settings. Emergency management and disaster policy is in a state of change and reflection, and we hope to contribute, critically and constructively, to that process of change and improvement.

The importance of thinking more broadly about disasters and emergencies has been recognized by many for some time. The doyen of hazard researchers, Gilbert White (1945), among others, has argued for policy and approaches that tackle human systems, as well as nature:

It has become common in scientific as well as popular literature to consider floods as great natural adversaries ... to overpower... This simple and prevailing view neglects ... the possible feasibility of other forms of adjustment.

To fulfil the intent of White's instruction, we approach the topic of disasters and emergencies in a different manner than most other literature. The aim is to consider disasters as strategic policy and institutional challenges that demand 'increasing political space' (UN-ISDR, 2004)), and not just as events that impose themselves on our communities. This requires an understanding of:

- the nature of disasters as a phenomenon arising at the intersection of closely interdependent human and natural systems; and
- the nature of public policy and human institutions as the primary means whereby societies frame common problems and generate responses to those problems.

This book

[Chapter 1](#) sets the scene by surveying the nature of disasters, emergencies, risks and hazards, and trends in emergency management. Selected 'vignettes' – brief case studies – are used to illustrate the major themes pursued in the book. [Chapter 2](#) draws key insights from the fields of public policy and institutional design. We propose that the disasters and emergencies field has not benefited sufficiently from traditional policy and institutional thinking and seek to remedy that deficiency. Core terms and concepts describing policy and institutions are defined.

[Chapter 3](#) brings together an understanding of the nature of disasters and the nature of policy and institutional systems, and constructs a framework for describing, analysing and prescribing disaster policy. This framework melds an extended emergency risk management model and a detailed policy cycle model, seeking to profit from and integrate the insights of both traditions of thought. The main elements of this framework are used to organize the remainder of the book, paying more attention to what comes before and after a disaster event than to the traditional focus on immediate response.

[Chapter 4](#) deals with ownership of the problem of disasters, their political context, definitions and roles of different communities, and the nature of public participation and communication. [Chapter 5](#) outlines how we frame the policy problem of disasters and emergencies, and the attributes of disasters that characterize them as policy problems and that shape the imperatives for societal response. [Chapter 6](#) explores policy choice and implementation, and [Chapter 7](#) details the issue of learning from experience and improving policy and institutional capacities over time – arguably the most critical aspects of all. [Chapter 8](#) surveys the challenges and opportunities for establishing institutional settings more conducive to

understanding, preparing for, responding to and learning from disasters and emergencies. In [Chapter 9](#), we set out the main challenges for the future.

The book uses numerous illustrative examples of the good and the bad of emergency management and disaster policy, but does not include detailed worked case studies. Part of the reason is to keep the book short and accessible. But the key reason is that the literature, both formal and grey, is replete with detailed retrospectives of specific disaster events and the way in which they have been impressively or poorly conceived and handled (we refer to such studies and their insights). The point of this book, however, is to draw broader lessons – both cautionary and positive – from across the field in order to inform policy and institutional responses.

We have consciously avoided setting out a comprehensive bibliography. Instead, our intention is to provide a guide to further reading and material for those interested; nevertheless, the set of references is large. The list below is aimed more at the policy and cross-disciplinary reader than the specialist. The literature is very large and any small list will be very partial and fails to catalogue important contributors. Interested readers should also examine recent issues of some of the journals listed below to gain a better picture of contemporary thinking. As a general starting point, the following are suggested: *At Risk* (Wisner et al, 2004 – about vulnerability); *Know Risk* (UN-ISDR, 2005 – numerous examples of risk management); *Crucibles of Disasters: Megacities* (Ken Mitchell, 1999 – case studies of the vulnerability of large cities); *Disasters by Design* (Mileti, 1999 – current state of US research and practice; it attempts to blend disaster management with sustainable development and lists references in a wide range of disaster-related areas); *Environmental Management and Governance* is one of several policy-related volumes by Peter May and Ray Burby (May et al, 1996); work by Tom Drabek has concentrated on the practice of emergency management (e.g. Drabek and Hoetmer, 1991); while material on the economics of disaster and disaster policy is introduced in the World Bank's volume *Understanding the Economic and Financial Impacts of Natural Disasters* (Benson and Clay, 2004), *Disaster Loss Assessment Guidelines* (Handmer et al, 2002) and advice from the websites of the US Federal Emergency Management Agency (FEMA) (see below) and the UK's Flood Hazard Research Centre.

Journals in the field include *International Journal of Mass Emergencies and Disasters*, with an emphasis on sociology; *Contingencies and Crisis Management*, which comes from a management and public administration perspective; *Natural Hazards*, which emphasizes natural phenomena; the more people-centred *Environmental Hazards* and *Global Environmental Change*; *Natural Hazards Review*, a wide-ranging journal from the US engineering society; and *Society and Natural Resources*, which explores societal aspects of natural resource management. Journals serving the field directly include the *Australian Journal of Emergency Management*; the journal *Disaster Prevention and Management* and the journal *Disasters* (which is more oriented towards developing countries), in addition to many journals of a trade rather than academic nature. Specialist journals from all fields and from practice, such as *Risk Analysis*, *Water Resources Research*, *International Journal of Wildland Fire*, and many publications from natural resource management contain articles of value for emergency management. Sources more oriented towards practice include the *Emergency Management Australia (EMA) Handbook* series (www.ema.gov.au) and equivalent

material from FEMA (www.fema.gov). Other sources include key organizations and their websites, such as EMA (www.ema.gov.au); United Nations International Strategy for Disaster Reduction (UN-ISDR, www.unisdr.org); the Hazards Center at the University of Colorado, Boulder, US (www.colorado.edu/hazards); the Asian Disaster Preparedness Centre (ADPC, www.adpc.net/), Bangkok, Thailand; and the Benfield UCL Hazard Research Centre at University College London, UK (www.benfieldhrc.org/).

Part I

Constructing the Problem

