

## The Routledge Handbook of Hazards and Disaster Risk Reduction

Ben Wisner, JC Gaillard and Ilan Kelman



## **Contents**

Lis	t of figures	X1
List of tables		
List of boxes		
$A\iota$	uthor biographies	xix
Fo	reword by Salvano Briceño	xxviii
Αc	knowledgements	xxxii
1	Challenging risk: we offer the reader a left-foot book <i>The Editors</i>	1
	RT   g picture views – hazards, vulnerabilities and capacities	9
2	Introduction to Part I The Editors	11
3	Framing disaster: theories and stories seeking to understand hazards, vulnerability and risk  Ben Wisner, JC Gaillard and Ilan Kelman	18
Po	litics, history and power	35
4	Historical concepts of disasters and risk .Greg Bankoff	37
5	Politics: power and disasters  Adolfo Mascarenhas and Ben Wisner	48
6	Human rights and disaster  Jean Connolly Carmalt and Claudine Haenni Dale	61

7	Violent conflict, natural hazards and disaster Ben Wisner	71
Cu	lture, knowledge and religion	83
8	Culture, hazard and disaster Kenneth Hewitt	85
9	Knowledge and disaster risk reduction  Jessica Mercer	97
10	Religious interpretations of disaster  David Chester, Angus M. Duncan and Heather Sangster	109
11	Hazards and disasters represented in film Gregory Berger and Ben Wisner	121
12	Hazards and disasters represented in music  Bob Alexander	131
En	vironment, development and sustainability	143
13	Hazards, risk and urbanisation  Mark Pelling	145
14	Disaster risk and sustainable development  Christopher M. Bacon	156
	रा ॥ ne-grained views – hazards, vulnerabilities and capacities	169
15	Introduction to Part II The Editors	171
All	hazards	177
16	Data sources on hazards  Julio Serje	179
17	Tools for identifying hazards Keiko Saito, Jane Strachan, Timothy Fewtrell, Nick Rosser, Susanna Jenkins, Aidan Slingsby and Katharine Haynes	191

Hydro-meteorological/climatological hazards		
18 Hazard, risk and climate change  David Simon	207	
19 Coastal storm Sebastiaan N. Jonkman, Herman Gerritsen and Marcel Marchand	220	
20 Thunderstorm and tornado  David Etkin, Kaz Higuchi and George Platsis	232	
21 Flood Hanna Schmuck	244	
22 Drought Thomas A. Smucker	257	
23 Extreme heat and cold Sabrina McCormick	269	
24 Wildfire Roger Underwood and Alexander Held	281	
Geophysical hazards	295	
25 Landslide and other mass movements  Danang Sri Hadmoko and Salvatore Engel-Di Mauro	297	
26 Earthquake Cinna Lomnitz and Ben Wisner	310	
27 Tsunami Brian G. McAdoo	322	
	322	
Brian G. McAdoo  28 Volcanic eruption		
Brian G. McAdoo  28 Volcanic eruption Susanna Jenkins and Katharine Haynes  29 Soil erosion and contamination	334	

## Contents

31	Livestock epidemic  Delia Grace and John McDermott	372
32	Plant disease, pests and erosion of biodiversity Pascal O. Girot	384
Ast	397	
33	Hazards from space Bill McGuire	399
Vulnerabilities and capacities		
34	Disability and disaster  David Alexander, JC Gaillard and Ben Wisner	413
35	Gender, sexuality and disaster  Maureen Fordham	424
36	Children, youth and disaster Agnes A. Babugura	436
37	Elderly people and disaster  Ehren B. Ngo	447
38	Caste, ethnicity, religious affiliation and disaster JC Gaillard	459
	RT III eparedness and response	471
39	Introduction to Part III The Editors	473
Preparedness and response		
40	Early warning principles and systems  Juan Carlos Villagrán de León	481
41	Preparedness, warning and evacuation Philip Buckle	493
42	Emergency management principles Alejandro López-Carresi	505

		Content
43	From damage and needs assessments to relief  Claude de Ville de Goyet	51
44	Health and disaster  Mark Keim and Jonathan Abrahams	53
45	Food security and disaster  Ian Christoplos	54
46	Settlement and shelter reconstruction  Manu Gupta	55
Re	covery	567
47	Psycho-social recovery Tammam Aloudat and Lene Christensen	569
48	Socio-economic recovery Rohit Jigyasu	580
Pla	Introduction to Part IV The Editors	<b>59</b> <sup>-</sup>
Go	overnance, advocacy and self-help	60
50	International planning systems for disaster  Margaret Arnold	603
51	National planning and disaster Allan Lavell, JC Gaillard, Ben Wisner, Wendy Saunders and Dewald van Niekerk	61'
52	Local government and disaster Geoff O'Brien, Mihir Bhatt, Wendy Saunders, JC Gaillard and Ben Wisner	62'
53	Urban and regional planning and disaster  Cassidy Johnson	64
54	Financial mechanisms for disaster risk	652
	Joanne Linnerooth-Bayer	

## Contents

55	Economic development policy and disaster risk  Charlotte Benson	664
56	Protection of infrastructure  Ana Maria Cruz	676
57	Social protection and disaster Walter Gillis Peacock and Carla Prater	687
58	Livelihood protection and support for disaster  David Sanderson	697
59	Community action and disaster  Zenaida Delica-Willison and JC Gaillard	711
60	Civil society and disaster  Martha Thompson	723
Co	mmunication and participation	737
61	University research's role in reducing disaster risk Dorothea Hilhorst and Annelies Heijmans	739
62	Education and disaster Emmanuel M. Luna	750
63	Media, communication and disasters Tim Radford and Ben Wisner	761
64	Participatory action research and disaster risk Michael K. McCall and Graciela Peters-Guarin	772
	RT V enclusions	787
	Challenging risk – has the left foot stepped forward?  The Editors	789
Bibliography Index		794 858