

Contents

1	Introduction to ‘Urban Disaster Resilience and Security—Addressing Risks in Societies’	1
	Alexander Fekete and Frank Fiedrich	
Part I Planning Urban Resilience		
2	Nepal and the “Urban Resilience Utopia”	13
	Johannes Anhorn	
3	Exploring the Role of Planning in Urban Resilience Enhancement—An Irish Perspective	27
	Aoife Doyle, William Hynes, Stephen M. Purcell and Maria Rochford	
4	Toward Climate Resilience in the USA: From Federal to Local Level Initiatives and Practices Since the 2000s	41
	Ebru A. Gencer and Wesley Rhodes	
5	Enhancing Resilience Towards Summer Storms from a Spatial Planning Perspective—Lessons Learned from Summer Storm <i>Ela</i>	53
	Hanna Christine Schmitt and Stefan Greiving	
6	Measuring Urban Resilience to Natural Disasters for Iranian Cities: Challenges and Key Concepts	71
	Solmaz Hosseinioon	
7	Resilience History and Focus in the USA	91
	Ronald Fisher, Michael Norman and James Peerenboom	

Part II Organizing Professionals and the People

- 8 Integrating Volunteers in Emergency Response: A Strategy for Increased Resilience Within German Civil Security Research** 113
 Jens Hälterlein, Linda Madsen, Agnetha Schuchardt,
 Roman Peperhove and Lars Gerhold
- 9 Contributions of Flood Insurance to Enhance Resilience—Findings from Germany** 129
 Annegret H. Thieken
- 10 Collaborative Emergency Supply Chains for Essential Goods and Services** 145
 Marcus Wiens, Frank Schätter, Christopher W. Zobel
 and Frank Schultmann

Part III Urban Resilience Assessment: Methods and Challenges

- 11 Competence as Enabler of Urban Critical Infrastructure Resilience Assessment** 171
 Florian Brauner, Marie Claßen and Frank Fiedrich
- 12 Resilient Disaster Recovery: The Role of Health Impact Assessment** 185
 James K. Mitchell
- 13 DS3 Model Testing: Assessing Critical Infrastructure Network Flood Resilience at the Neighbourhood Scale** 207
 Damien Serre
- 14 Enhancing Flood Resilience Through Collaborative Modelling and Multi-criteria Decision Analysis (MCDA)** 221
 Mariele Evers, Adrian Almoradie and Mariana Madruga de Brito

Part IV Urban Critical Infrastructure and Security

- 15 An Approach for Quantifying the Multidimensional Nature of Disaster Resilience in the Context of Municipal Service Provision** 239
 Christopher W. Zobel, Milad Baghersad and Yang Zhang
- 16 A Future-Oriented Agent-Based Simulation to Improve Urban Critical Infrastructure Resilience** 261
 Thomas Münzberg, Tim Müller and Wolfgang Raskob

17 An Indicator-Based Approach to Assessing Resilience of Smart Critical Infrastructures 285
 A. Jovanović, K. Øien and A. Choudhary

18 Certified Video Surveillance Systems for More Resilient Urban Societies 313
 Simone Wurster, Irene Kamara, Thordis Sveinsdottir and Erik Krempel

19 Situational Resilience—A Network-Perspective on Resilience to Crime 331
 Herbert Schubert and Tim Lukas

Part V Resilience Trends, Paradigms and Reflections

20 Urban Risksapes—Social and Spatial Dimensions of Risk in Urban Infrastructure Settings 347
 Florian Neisser and Detlef Müller-Mahn

21 Researching Milieu-Specific Perceptions of Risk, (in)Security, and Vulnerability—A Conceptual Approach for Understanding the Inequality and Segregation Nexus in Urban Spaces 361
 Kristina Seidelsohn, Martin Voss and Daniela Krüger

22 Resilience and Thriving in Spite of Disasters: A Stages of Change Approach 383
 Norbert Mundorf, Colleen A. Redding, James O. Prochaska, Andrea L. Paiva and Pamela Rubinoff

23 Foresight in Sight: How to Improve Urban Resilience with Collaboration Among Public Authorities? 397
 Riitta Molarius, Nina Wessberg, Jaana Keränen and Mervi Murtonen

24 How to Demarcate Resilience? A Reflection on Reviews in Disaster Resilience Research 413
 Maike Vollmer and Gerald Walther

25 Challenges in Establishing Cross-Border Resilience 429
 Anouck Adrot, Frank Fiedrich, Andreas Lotter, Thomas Münzberg, Eric Rigaud, Marcus Wiens, Wolfgang Raskob and Frank Schultmann

Part VI Perspectives from the Science-Policy Nexus

26 Resilience—A Useful Approach for Climate Adaptation? 461
 Thomas Abeling, Achim Daschkeit, Petra Mahrenholz and Inke Schauser

27 Urban Resilience and Crisis Management: Perspectives from France and Germany 473
Juergen Weichselgartner, Bernard Guézo, Irmtraud Beerlage,
Christian Després, Alexander Fekete, Gabriele Hufschmidt,
Orsola Lussignoli, Stefanie Mey-Richters, Jens Naumann
and Ina Wienand

28 Considerations About Urban Disaster Resilience and Security—Two Concepts in Tandem? 495
Alexander Fekete and Janos J. Bogardi

29 Synthesis 503
Alexander Fekete and Frank Fiedrich



<http://www.springer.com/978-3-319-68605-9>

Urban Disaster Resilience and Security

Addressing Risks in Societies

Fekete, A.; Fiedrich, F. (Eds.)

2018, XV, 518 p. 77 illus., 62 illus. in color., Hardcover

ISBN: 978-3-319-68605-9