## **Contents**

Introduction	X111
Part 1. The Multiple Theoretical and Conceptual Approaches to Vulnerability	1
Chapter 1. Plural Vulnerabilities: Approaches in the Humanities Sylvia BECERRA and Anne PELTIER	3
1.1. Introduction	3
the vulnerability of contemporary societies	4
of risks by geographers	4
1.2.2. The historical approach	5
<ul><li>1.2.3. The sociological view</li></ul>	7
to poverty and cost-benefit analysis	10
1.2.5. Legal approaches	12
1.3. Interdisciplinary approaches revealing the contemporary exacerbation	
of vulnerability at the environment-society interface	13
<ul><li>1.3.1. Environmental injustices: an echo of social vulnerabilities</li><li>1.3.2. Environmental suffering at the interface of different</li></ul>	14
components of vulnerability	15

1.3.3. "Sacrifice zones": from the nuclear apocalypse to the	
standard of contemporary societies	16 17 18
Chapter 2. Conceptual Models of Vulnerability or Vulnerabilities Samuel RUFAT	25
2.1. Introduction. 2.2. Risk-hazard approaches 2.3. Political economy and ecology approaches 2.4. Territorial approaches to vulnerability. 2.5. Other models of vulnerability or vulnerabilities 2.6. Conclusion 2.7. References	25 28 30 34 35 37 38
Chapter 3. Risks, Crises and Ordinary Vulnerability	43
3.1. Introduction. 3.2. Vulnerability: between hazard and exceptional event. 3.2.1. The central position of the event. 3.2.2. In contradiction with the very idea of a vulnerability constructed by society. 3.3. The crisis: between exceptional event and ordinary situation	43 44 44 46
of the social world	47 48 49 49 50
around the event	51 51 53
vulnerability and vulnerability in the face of a major earthquake 3.5.1. Conceptual framework and institutional framing 3.5.2. Accessibility as an indicator of ordinary vulnerability 3.5.3. Measuring the specific vulnerability to an earthquake	54 54 55 56
3.6. Conclusion	57 58

lien Langumier	
4.2. Reducing vuln	nerability: from restricting constructability to the
4.2.1. Regulating 4.2.2. The vuln	ng existing assets
4.2.3. Numerou	t for actions support systems for modest results: resistance
4.3. Expectations,	nerability?
	sms
•	ry prevention or infringement of private property
4.4. Climate chang	rerability present in interference in the private sphere ge forecast: an extension of the prevention policy
	ppearance of properties?
4.6. References	
napter 5. The Cha	approaches and Vulnerability Assessments allenge of Measuring and Operationalizing
napter 5. The Chaulinerabilities	allenge of Measuring and Operationalizing
napter 5. The Cha Inerabilities muel RUFAT 5.1. Introduction: t	allenge of Measuring and Operationalizing
Inprabilities unuel RUFAT  5.1. Introduction: t 5.2. Which method 5.2.1. Quantitat	the challenges of operationalization
napter 5. The Challnerabilities	the challenges of operationalization
apter 5. The Challnerabilities	the challenges of operationalization
sapter 5. The Challerabilities	the challenges of operationalization
apter 5. The Challerabilities	the challenges of operationalization
sapter 5. The Challerabilities	the challenges of operationalization
napter 5. The Charles all nerabilities	che challenges of operationalization
sapter 5. The Charles and Ruffat S.1. Introduction: t 5.2. Which method 5.2.1. Quantitat 5.2.2. Deductive 5.2.3. Inductive 5.2.4. Hierarchi 5.2.5. Relative 5.2.6. Qualitative 5.3. On which grou 5.4. On what time is	che challenges of operationalization
sapter 5. The Challerabilities	che challenges of operationalization des and models for which vulnerabilities des approaches and increase in generality des approaches and composite indicators des approaches and synthetic indices des approaches and expert opinions des approaches and vulnerability profiles des approaches and empirical case studies
sapter 5. The Charles and Ruffat S.1. Introduction: t 5.2. Which method 5.2.1. Quantitat 5.2.2. Deductive 5.2.3. Inductive 5.2.4. Hierarchi 5.2.5. Relative 5.2.6. Qualitati 5.3. On which grou 5.4. On what time s 5.5. At what scales 5.6. Conclusion: w	che challenges of operationalization described and models for which vulnerabilities described approaches and increase in generality described approaches and composite indicators. described approaches and synthetic indices. described approaches and expert opinions. described approac
sapter 5. The Charlinerabilities	che challenges of operationalization des and models for which vulnerabilities des approaches and increase in generality des approaches and composite indicators des approaches and synthetic indices des approaches and expert opinions des approaches and vulnerability profiles des approaches and empirical case studies

Chapter 6. Assessing Territorial Vulnerability: Concepts and Methods for an Integrated Approach to Vulnerability Elise Beck and Jérémy Robert	113
6.1. Introduction	113
6.2. Territorial vulnerability: toward an integrated approach to	
vulnerability	115
6.3. The stakes-based approach	116
6.4. The approach based on interdependencies	121
6.5. Analyzing temporalities	124
vulnerability over time	124
6.5.2. The dynamic approach: a spatiotemporal approach to the	
vulnerability of stakes	125
6.5.3. Revealing territorial vulnerabilities through multi-agent	
modeling	128
6.6. Conclusion	129
6.7. References	130
Chapter 7. Analyzing the Vulnerability of Networks and Critical Infrastructures	135
7.1. Introduction	135
trivial question masking an operational paradigm shift	136
7.3. A complex critical infrastructure vulnerability assessment	140
7.4. A complex issue and stakeholders' interplay	145
7.5. Conclusion	148
7.6. References	148
Chapter 8. From the Health Vulnerability of Territories to the Reduction of Health Inequalities	153
Zoé VAILLANT and Stéphane RICAN	
<ul><li>8.1. Introduction</li></ul>	153
and territory	154
<ul><li>8.2.1. Risk in the health geography approach</li></ul>	154
vulnerability triptych?	156

10.3.2. The importance of the participatory process: a case	202
study from New Zealand	203 205 207
whose benefit?	209 210
Chapter 11. Vulnerability in a Time of Climate Change and	
Global Urbanization	213
<ul><li>11.1. Introduction</li></ul>	213 215
for action	215 217
of socio-spatial inequalities	218
of socio-spatial inequalities	221
responsibilities	223
11.3.1. The complexity of adaptation policies	223
11.3.2. Risks of maladaptation in the face of climatic uncertainties	224
11.3.3. The need to integrate adaptation into sustainability issues 11.3.4. Political decision makers confronted with their	226
responsibilities	228
11.4. Conclusion	230
11.5. References	232
Chapter 12. Actors and Discourses of Vulnerability	
Reduction: From International to Local	235
12.1. Introduction	235
12.2. The production of an international world of disasters and risks	237
12.2.1. The multiplication of specific multilateral institutions 12.2.2. The dissemination of risk and disaster management	237
in international organizations	239

12.2.3. International theoretical frameworks that produce	
frameworks for action	241
12.2.4. From international discourse to local action	242
12.3. Social sciences: between critical thinking and support for action	243
12.3.1. From international discourse to local action	243
12.3.2. Vulnerability: too critical a concept to be included in	
public policies?	244
12.3.3. Resilience in the face of criticism	245
12.3.4. Social sciences and public policy	246
12.4. From international discourse to local action: NGOs on the ground	247
12.4.1. The call for projects as a framing tool	248
12.4.2. Framing the modes of action	249
12.4.3. The ambiguities of participation	251
12.4.4. Competition and reciprocal legitimization	252
12.5. Conclusion	254
12.6. References	255
Conclusion	257
List of Authors	265
Index	267