## Contents

	Preface	page xi	
	Acknowledgements	XV	
	PART I CONTEXT, TOOLS AND SYSTEMS	1	
1	Adaptation and the Paris Agreement	3	
	1.1 The Global Context	3	
	1.2 The Climate Convention	5	
	1.3 Experimentalist Governance	7	
	1.4 Experimentalism, Sustainability and Systems Thinking	10	
	1.5 The Paris Agreement	13	
	1.6 Design of the Book	21	
2	Chaos and Climate Emergency	25	
	2.1 Birth of the Anthropocene	25	
	2.2 'War' with Nature	26	
	2.3 Goals of the Peace	29	
	2.4 Ecological Risk	30	
	2.5 Tipping Points	31	
	2.6 Local Risks	37	
	2.7 The Climate Emergency	40	
	2.8 The Politics of Climate Chaos	42	
	2.9 Signs of a Zeitgeist Shift	43	
	PART II UNDERSTANDING CLIMATE CHAOS	59	
		07	
3	Systems, Climate and Ecology	61	
	3.1 Systems and Chaos	61	
	3.2 Climate and Climate Change	62	
	3.3 Climate Change and Reference Languages	64	
			vii

Cambridge University Press
978-1-108-84012-5 - Surviving Climate Chaos by Strengthening Communities and Ecosystems
Julian Caldecott
Table of Contents
More Information

## viii contents

	3.4 Anthropology and Social Systems	70
	3.5 Ecology and Ecological Systems	72
	3.6 Understanding Adaptation	74
	3.7 Ecological Systems and Biodiversity	84
	3.8 Social Systems and Culture	86
	3.9 Adaptation, Resilience, Resistance and Flexibility	88
4	Making Systems Stronger	90
	4.1 Dunbar Groups	90
	4.2 The Strength and Dissolution of Systems	91
	4.3 Complexity and Strength	94
	4.4 Influences on Strength and Fragility	99
	4.5 Origins of System Strength	101
	4.6 Investing in System Strength	103
	4.7 Levels of Society	103
	4.8 Algorithms of Adaptation	106
	PART III PRACTICAL SYSTEM	
	STRENGTHENING	109
5	Community Forest User Groups in Nepal	111
	5.1 Historical Context	111
	5.2 The Denmark–Nepal Relationship	113
	5.3 NARMSAP (1998–2005)	116
	5.4 Nepal's Own 'Country Programme'	122
	5.5 Lessons from Nepal	125
6	Community Land Titling in Bolivia	128
	6.1 Historical Context and the Start	
	of Danida Involvement	128
	6.2 Indigenous Peoples' Lands, Rights and Languages	134
	6.3 Net Results and Political Transitions	138
	6.4 Lessons from Bolivia	146

Cambridge University Press 978-1-108-84012-5 — Surviving Climate Chaos by Strengthening Communities and Ecosystems Julian Caldecott Table of Contents <u>More Information</u>

## contents ix

7	Coastal Zone and Community Planning in Zanzibar	147
	7.1 Tropical Islands, Coasts and Climate Change	147
	7.2 The ZAN-SDI Project	151
	7.3 The Institutional System for Spatial Planning	152
	7.4 Lessons from Zanzibar	161
8	Liveable and Sustainable Cities	163
	8.1 Air Quality in the Kathmandu Valley	163
	8.2 Self-organised Urban Communities	175
	8.3 Sustainable Cities?	177
	PART IV GLOBAL PERSPECTIVES	183
9	Changing Ideas of Adaptation	185
	9.1 Inconclusive Debate, 1998–2008	185
	9.2 Adaptation Markers, 2009–2010	186
	9.3 Diverse Frameworks, 2010–2014	189
	9.4 Knowledge Concerns, 2014–2015	192
	9.5 Adaptation Research after Paris	194
	9.6 Ideas of Adaptation Aid	197
	9.7 Adaptation Aid before and after Paris	200
	9.8 Developmental Delay in the	
	Adaptation Agenda	203
10	Learning from the Adaptation Communications	207
	10.1 Analysis of the Earliest NDCs	207
	10.2 Ecosystems and Communities in the	
	First NDCs	212
	10.3 Ecosystem-Based Adaptation in 2015–2020	218
	10.4 Community-Based Adaptation in 2015-2020	226
	10.5 The Growth of System-Based Adaptation	233
	10.6 Changes in System-Based Approaches between 2015	
	and 2020	234

Cambridge University Press
978-1-108-84012-5 – Surviving Climate Chaos by Strengthening Communities and Ecosystems
Julian Caldecott
Table of Contents
More Information

## X CONTENTS

11	Adaptation in Specific Geographies	246
	11.1 Adaptation in the European Union	246
	11.2 Adaptation in Small Island States	255
	11.3 Adaptation in Africa	266
	11.4 Adaptation in the Americas	274
	PART V CONCLUSIONS	277
12	Designing and Evaluating Adaptation Investments	279
	12.1 Assessing Generic Design Quality	279
	12.2 Designing for Adaptive Performance	282
	12.3 Scoring Design and Performance Using Evidence	284
	12.4 Telling 'before and after' and Contribution Stories	289
	12.5 Comparing Projects and Portfolios	289
	12.6 Criteria for Evaluating Generic Performance	294
	12.7 Special Factors in Evaluating Adaptive Performance	294
	12.8 Co-benefits of Local System Strengthening	301
13	Adaptive Thinking, Feeling and Acting	308
	13.1 Mitigation as a Type I Issue	308
	13.2 Mitigation as a Type II Issue	308
	13.3 Adaptation as a Type III Issue	311
	13.4 Hope and Purpose	313
	13.5 Peace with Nature	314
	13.6 Take-Home Messages	317
	List of Abbreviations and Acronyms	324
	References	327
	Index	374

Colour plates can be found between pages 208 and 209.