## **Contents**

Abc	out the	e Editors	X	
ist	of Co	ntributors	xii	
or	eword		xviii	
1ck	nowle	dgements	xix	
1	Intr	oduction	1	
	Richard Haigh and Dilanthi Amaratunga			
	1.1	A global challenge	2	
	1.2	Why focus upon the built environment?	4	
	1.3	Resilience in the built environment	5	
	1.4	Disasters as a window of opportunity	7	
	1.5	Structure of the book	9	
	Refe	rences	11	
2	Capacity Development for Post-Disaster Reconstruction			
	of the Built Environment		13	
	Kan	chana Ginige and Dilanthi Amaratunga		
	2.1	Introduction	13	
	2.2	Capacity needs for post-disaster reconstruction	14	
	2.3	Capacity gaps in post-disaster reconstruction	18	
	2.4	Capacity development framework	20	
	2.5	Summary	27	
	Refe	erences	28	
3	Capacity of the Construction Industry for Post-Disaster			
	Reconstruction: Post-Tsunami Sri Lanka		30	
	Krisanthi Seneviratne			
	3.1	Introduction	30	
	3.2	Impact of tsunami	31	
	3.3	Disaster risk management	35	
	3.4	Role of the construction sector in post-disaster recovery	38	
	3.5	Post-tsunami Sri Lanka: the role of the Sri Lankan		
		construction industry	39	
	3.6	Capacity of the construction industry in		
		post-tsunami reconstruction	42	
	3.7	Summary	47	
	References		48	

4		ourcing for Post-Disaster Reconstruction: A Longitudinal e Study Following the 2008 Earthquake in China	51		
	Yan Chang, Suzanne Wilkinson, Regan Potangaroa				
	and Erica Seville				
	4.1	Introduction	51		
	4.2	The impact of the 2008 Wenchuan earthquake	52		
	4.3	Wenchuan earthquake reconstruction process	52		
	4.4	Resourcing for Wenchuan earthquake reconstruction	56		
	4.5	Key resourcing problems and solutions adopted by the			
		Chinese reconstruction teams	60		
	4.6	Summary	65		
	Not	•	66		
	Refe	erences	66		
5	Emj	Empowerment in Disaster Response and Reconstruction:			
	Role	e of Women	70		
	Niro	ooja Thurairajah			
	5.1	Introduction	70		
	5.2	The concept of empowerment	71		
	5.3	Women's empowerment	75		
	5.4	Women in a post-disaster setting	79		
	5.5	Women's empowerment in post-disaster reconstruction	83		
	5.6	Summary	86		
	Refe	erences	87		
6	Con	Community-Based Post-Disaster Housing Reconstruction:			
	Examples from Indonesia				
	Taufika Ophiyandri				
	6.1	Introduction	91		
	6.2	Disaster vulnerability	91		
	6.3	National policy	97		
	6.4	Community participation in reconstruction	99		
	6.5	Community-based reconstruction practices	103		
	6.6	Summary	113		
	Refe	erences	113		
7	Stakeholder Consultation in the Reconstruction Process				
	Nuwani Siriwardena and Richard Haigh				
	7.1	Introduction	117		
	7.2	Defining stakeholders	118		
	7.3	Stakeholders and post-disaster reconstruction	118		
	7.4	Classifying stakeholders	121		
	7.5	Expectation gaps in post-disaster housing reconstruction	123		
	7.6	Developing a stakeholder engagement strategy	126		
	7.7	Summary	130		
	Refe	erences	130		

8	Proje	ct Management of Disaster Reconstruction	133
	Udayangani Kulatunga		
	8.1	Introduction	133
	8.2	Procurement and contract management	135
	8.3	Sourcing of labour, material and equipment	137
	8.4	Resource management	139
	8.5	Quality control	139
	8.6	Financing	141
	8.7	Governance	143
	8.8	Disaster risk reduction	146
	8.9	Summary	148
	Refer	ences	148
9	Legis	lation for Effective Post-Disaster Reconstruction:	
		s from New Zealand	151
	Jame	s Olabode Rotimi, Suzanne Wilkinson and Dean Myburgh	
	9.1	Introduction	151
	9.2	Recovery and reconstruction	151
	9.3	Legislative and regulatory considerations post disaster	155
	9.4	Improving recovery through legislation	159
	9.5	Impediments to post-disaster reconstruction:	
		the New Zealand Building Act (BA) 2004	161
	9.6	New Zealand Case Study 1: Manawatu-Wanganui	
		Floods, 2004	163
	9.7	New Zealand Case Study 2: Matata (Bay of Plenty)	
		Floods, 2005	165
	9.8	Lessons for post-disaster legislation changes	168
	9.9	Summary	170
	Refer	ences	170
10	Conf	lict, Post Conflict and Post-Conflict Reconstruction:	
		oring the Associated Challenges	175
	_	nthi Seneviratne and Dilanthi Amaratunga	
	10.1	Introduction	175
	10.2	Conflicts	176
	10.3	Conflict circle	181
	10.4	Post conflict	182
	10.5	Post-conflict reconstruction	184
	10.6	Summary	189
	Refer	ences	190
11	Private Construction Sector Engagement in		
	Post-Disaster Reconstruction		192
	Richard Sutton and Richard Haigh		
	11.1	Introduction	192
	11.2	Challenges in post-disaster reconstruction	192

	11.3	What is the role of the private sector?	193
	11.4	Business and humanitarian collaborations	194
	11.5	Corporate social responsibility	195
	11.6	Encouraging private sector participation	197
	11.7	Integrating private construction sector support for	
		post-disaster reconstruction	199
	11.8	Summary	204
	Refer	ences	206
12	Knowledge Management Practices and Systems Integration		
	Chan	ninda Pathirage	
	12.1	Introduction	208
	12.2	Disaster management cycle	210
	12.3	Knowledge management in disaster management context	212
	12.4	Sharing and transferring disaster management knowledge	213
	12.5	Case studies of good practices and lessons learned	216
	12.6	Capacity enhancing and knowledge strategies: the	
		ISLAND project	223
	12.7	Summary	231
	Refe	rences	232
13		oration of Major Infrastructure and Rehabilitation	
		ommunities	236
		hal Keraminiyage	226
	13.1	Introduction	236
	13.2	Impact of disasters on infrastructure	237
	13.3	Impact of the failure of infrastructure in disaster-affected	2.40
		communities and infrastructure interdependencies	240
	13.4	Post-disaster infrastructure reconstruction and restoring	242
		major infrastructure	242
	13.5	Post-disaster infrastructure reconstruction for improved	246
		quality of life	246
	13.6	Summary	247 248
	Refe	rences	240
14	C		
		Demolition Debris	251
	•	nni Karunasena	251
	14.1	Introduction	251
	14.2		252
	1 4 0	post-disaster situations	252
	14.3	C	254
	14.4		259
	14.5	,	262
	Refe	rences	263

15	Linking Reconstruction to Sustainable		
	Socio-Economic Development		. 268
	Roshani Palliyaguru and Dilanthi Amaratunga		
	15.1	Introduction	268
	15.2	Post-disaster reconstruction as a window of opportunity	
		for development	269
	15.3	Millennium development goals as a framework of action	
		for sustainable socio-economic development and	
		infrastructure reconstruction	274
	15.4	Post-disaster infrastructure reconstruction as a	
		sustainable socio-economic development strategy	277
	15.5	Summary	283
	References		283
16	Disaster Risk Reduction and its Relationship with		
	Sustainable Development		287
	Kanchana Ginige		
	16.1		287
	16.2	Disasters: a result of poor development	288
	16.3	Disasters: a barrier for development	292
	16.4	Disaster risk reduction for sustainable development	
		and vice versa	294
	16.5	Summary	300
	References		301
17	Conc	clusion	304
	Richard Haigh and Dilanthi Amaratunga		
	Reference		306
Ind	ex		307