CONTENTS

PART ONE Logistics and supply chain management in the humanitarian context 1

1.1 Introduction 3

Ira Haavisto, Gyöngyi Kovács and Karen M Spens, Humanitarian Logistics and Supply Chain Research Institute (HUMLOG Institute), Hanken School of Economics, Helsinki, Finland

Introduction 3

What is so special about humanitarian logistics? 8
Trade-offs in humanitarian logistics 10
Strategic, tactical and operational levels 13
Activities, phases and mandates 14
Concluding remarks 16
Notes 17
References 18

1.2 Exploring logistics competences and capabilities in not-for-profit environments: the case of Médecins Sans Frontières 20

Diego Vega, Neoma Business School and Cret-Log, France

Introduction 21
Literature review 22
Research design 30
Results 32
Discussion and implications 38
References 39

PART TWO Setting up a supply chain network 45

2.1 Setting up a humanitarian supply network 47

Graham Heaslip (HUMLOG Institute, Finland and Galway Mayo Institute of Technology, Ireland) and Gyöngyi Kovács (HUMLOG Institute)

Introduction 47

Local versus global considerations in humanitarian supply chains 48

Anticipating, and preparing for, new risks 50

Cash transfer programmes changing the logic of humanitarian supply chains 52

Concluding remarks 53

References 54

2.2 Service triad case study 56

Graham Heaslip, HUMLOG Institute, Finland and Galway Mayo Institute of Technology, Ireland

The buyer organization 59
The service provider 59
The end customer 59
Findings 60
References 64

2.3 Setting up a supply chain network in the Kenyan nutrition sector 66

Tunca Tabaklar (HUMLOG Institute, Hanken School of Economics, Helsinki, Finland) and Olivia Agutu (UNICEF Kenya, Nairobi, Kenya)

Introduction 66

Trade-offs in procurement decisions in setting up a supply chain network 67

Kenyan nutrition supply chain 68

Procurement activities 70

Collaboration in the nutrition supply chain 72

Sustainability and performance in the nutrition supply chain 72

Concluding remarks 73

Reference 75

PART THREE Supply chain strategy 77

3.1 Supply chain strategy 79

Ira Haavisto (HUMLOG Institute), Graham Heaslip (HUMLOG Institute and Galway Mayo Institute of Technology) and Paul D Larson (University of Manitoba, Canada)

Introduction 79
Supply chain strategies 80
Humanitarian supply chain and performance 82
Discussion – alignment of strategy 84
References 86

3.2 Case study: partnerships – supply chain strategy 89

Graham Heaslip, HUMLOG Institute and Galway Mayo Institute of Technology

Case history Kosovo 90 Case history Chad 91 Outcome 91 References 97

PART FOUR Decision making in the supply chain 101

4.1 Decision making in humanitarian logistics 103

Minchul Sohn (HUMLOG Institute, Finland), Eija Susanna Meriläinen (HUMLOG Institute, Finland) and David B Grant (HUMLOG Institute, Finland and Hull University Business School, UK)

Introduction 103

Cost-effective decision criteria in logistics and supply chain management 105

Contextual specifics in humanitarian supply chains 108 External structures 114

Illustration of the facility location decisions 118 A comprehensive decision-making model 120

Conclusions 122

References 122

4.2 Forecasts, financing and acceleration of humanitarian logistics: from supply chain to value chain 124

Janot Mendler de Suarez, Pablo Suarez, Erin Coughlan de Perez and Dak Martin Doleagbenu, Red Cross Red Crescent Climate Centre, Netherlands

The early warning–early action gap 124
Forecast-based financing 126
Togo's FbF pilot project 128
Full value proposition 131
Conclusions 134
References 135

PART FIVE Procurement 137

5.1 Procurement in humanitarian supply chains 139

Ala Pazirandeh, University of Gothenburg, Sweden

An overview of procurement in the humanitarian sector 140 Main challenges of procurement in humanitarian supply chains 142

The procurement process and the humanitarian sector 142
Procurement strategies and factors impacting their choice 145
Procurement strategies for a better procurement power 150
A closer look at co-operative procurement 154
Co-ordination for successful co-operative purchasing 155
Concluding remarks 157
References 158

5.2 Joint tender for freight-forwarding services: promises and pitfalls 162

Ala Pazirandeh (University of Gothenburg, Sweden) and Heidi Herlin (HUMLOG Institute, Finland)

Initiation of the joint tender 163
Profiles of involved agencies 164
Profile of freight forwarders for the humanitarian agencies 165
Reactions and expectations among the agencies 166
Reactions and expectations among the freight forwarders 167
The tender process 167

Turbulence before the finish line 169
Conclusions 172
Notes 172
References 172

5.3 A procurement project in the Philippines 173

Jonas Stumpf (HELP Logistics – a programme of the Kuehne Foundation, Asia Office), Maximilian Foehse (HELP Logistics – a programme of the Kuehne Foundation, Asia Office) and Tom Godfrey (Save the Children, Asia Regional Office)

Introduction 173
Methodology of the procurement project 174
Spend analysis 177
Price-capturing mechanism 178
Summary 180
References 181

5.4 Partnerships and innovative procurement as enablers for sustainable development goals 182

Rolando M Tomasini, Head of Global Outreach at the United Nations Office for Project Services (UNOPS)

Development agenda paradigm shift 184 Partnerships risks 185 Conclusion 187 Notes 187

PART SIX Transportation, fleet management, delivery and distribution 189

6.1 Transport in humanitarian supply chains 191

Ruth Banomyong (Thammasat University, Thailand) and David B Grant (HUMLOG Institute, Finland and Hull University Business School, UK)

Introduction 191

The role of transport in humanitarian SCM 192
The selection of carrier and modes choices in humanitarian supply chains 198

A reference framework for transport in humanitarian supply chains 203
Summary 207
References 208

6.2 Humanitarian aid supply corridors: Europe-Iraq 209

Anthony Beresford, Stephen Pettit and Ziad al Hashimi, Cardiff Business School, Cardiff University, UK

Background 209
The humanitarian crisis in Iraq 210
Route choice and risk spreading 211
Multimodal corridors from Germany to Baghdad 212
Multimodal corridors from west Mediterranean to Baghdad 214
Summary and conclusions 218
References 220

PART SEVEN Warehouse and inventory management 223

7.1 Warehousing in humanitarian logistics 225

Alain Vaillancourt, Jönköping International Business School, Centre of Logistics and Supply Chain Management, and HUMLOG Institute, Finland

Warehousing in supply chains 225
Assessing the warehouse needs 228
Warehousing material handling equipment 229
Warehouse layouts 231
Inventory management processes 234
Warehouse management systems and performance improvement 238
Warehouse security and safety 241
Conclusion 244
Lessons learnt 245
Reference 245

7.2 The ABC analysis 246

Alain Vaillancourt, Jönköping International Business School, Centre of Logistics and Supply Chain Management, and HUMLOG Institute, Finland

PART EIGHT Information technology 257

8.1 Information systems for humanitarian logistics: concepts and design principles 259

Tina Comes (Centre for Integrated Emergency Management, University of Agder, Norway) and Bartel Van de Walle (Policy Analysis Section, Department of Multi-Actor Systems, Delft University of Technology, the Netherlands)

Introduction 259
Disaster management information systems 261
Designing humanitarian logistics information systems 274
Conclusions 280
Notes 281
References 282

8.2 GDACSmobile: an IT tool supporting assessments for humanitarian logistics 285

Daniel Link (Chair for Information Systems and Supply Chain Management, Westfälische Wilhelms-Universität Münster, Germany) and Bernd Hellingrath (Chair for Information Systems and Supply Chain Management, Westfälische Wilhelms-Universität Münster, Germany)

Introduction 285
Main stakeholder groups 287
Information flows 289
Application case 290
Conclusion 296

PART NINE Sustainability, performance measurement, monitoring/evaluation and exit strategy 299

9.1 Logistics competency for humanitarian relief: the case of Médecins Sans Frontières 301

Diego Vega, NEOMA Business School, France

From *l'intendance* to logistics 302 Logistics competency at MSF 303 Competing through capabilities and competencies 305
Ensuring performance through logistics 308
Strategizing logistics of humanitarian organizations 309
Notes 310
References 310

9.2 Community-managed rural water supply in Ethiopia 311

Linda Annala, HUMLOG Institute, Finland and Arto Suominen, Community-managed Accelerated WaSH in Ethiopia (COWASH) project

Trade-offs 311
Performance 313
Sustainability 314
Community 315
Collaboration 316
Hints for practitioners 317
References 317

9.3 Managing supply chain sustainability risks 318

Alexander Blecken, Anna Gaarde and Nives Costa, United Nations Office for Project Services (UNOPS), Denmark

Highlights 318
Map procurement spend 321
Evaluate sustainability risks 321
Evaluate supplier leverage 322
Prioritize and take action 324
Pilot workshop 325
Conclusions 327
Hints for practitioners 328

9.4 Using three-dimensional printing in a humanitarian context: challenges and solutions 329

Peter Tatham (Department of International Business and Asian Studies, Griffith University, Australia) and Jennifer Loy (Queensland College of Art, Griffith University, Australia)

Introduction 329
Key logistic trade-offs of 3DP 330

3D printing 331

Moving from theory to practice 333

Management of 3DP in a humanitarian context 335

Summary 336

Hints for practitioners 337

References 337

9.5 Making performance measurement work in humanitarian logistics: the case of an IT-supported balanced scorecard 339

Adam Widera (Chair for Information Systems and Supply Chain Management, Westfälische Wilhelms-Universität Münster, Germany) and Bernd Hellingrath (Chair for Information Systems and Supply Chain Management, Westfälische Wilhelms-Universität Münster, Germany)

Introduction 339
What to measure – the balanced scorecard approach 341
Process-orientation 341
Manageability of the PMS 344
How to measure – the IT supported dashboard approach 345
Lessons learnt 350
Outlook 351
References 351

9.6 Boko Haram: the security and supply chain management challenges of providing relief 353

Richard Oloruntoba, University of Newcastle, Australia

References 369

Introduction and background 353
Logistical distribution challenges: scale and dispersion 360
Security challenges to relief supply chains 361
Challenges of finding reliable persons and organizations, and inadequate media coverage 362
Existing relief operations and supply chains 362
Framework for mitigating security challenges in relief operations and associated relief supply chains 364
Summary and conclusions 368
Key considerations for practitioners 368

9.7 Measuring the supply chain performance of humanitarian organizations: the case of Thai Red Cross in Chiangmai 372

Ruth Banomyong (Centre for Logistics Research, Thammasat Business School, Thammasat University, Thailand) and Paitoon Varadejsatitwong (TU-Kuehne HUMLOG Team, Thammasat Business School, Thammasat University, Thailand)

Introduction 372 Quick scan audit methodology (QSAM) 373 Case study: Thai Red Cross Chiangmai Office 378 References 387

Index 388