

Contents

1	Preamble	1
	Susanne Hartard	
Part I Role of Resources for International Conflict Constellations		
2	Risks by Volatility and Peaks of Resources Market Prices	15
	Susanne Hartard	
3	Climate Change and Conflict	21
	Ragnhild Nordås and Nils Petter Gleditsch	
4	Forging War or Peace? The Role of the State in Extractive Economies of Sub-Saharan Africa	39
	Marie Müller-Koné and Peter Croll	
Part II Conflicts on Fossil and Nuclear Energy Supply		
5	The Lifecycle of Oil: Problems and Conflicts	61
	Dirk Ipsen	
6	Nuclear Fuel Chain: Uranium Resources and Associated Risks	75
	Wolfgang Liebert and Matthias Englert	
7	Conflicts on Nuclear Energy Use	93
	Michael Sailer	
Part III Perspectives of Strategic Material Resources Management		
8	Closing the Loop for Rare Metals Used in Consumer Products: Opportunities and Challenges	103
	Christian Hagelüken	

9	Possible Resource Restrictions for the Future Large-Scale Production of Electric Cars	121
	Eckard Helmers	

Part IV Sustainable Solutions for Resource Consumption

10	Technological Innovation and Anthropogenic Material Flows	135
	Liselotte Schebek, Witold-Roger Poganietz, Silke Feifel, and Saskia Ziemann	
11	Illicit trade with Coltan and Implications for Certification	155
	Raimund Bleischwitz, Monika Dittrich, and Chiara Pierdicca	
12	Certified Trading Chains in Mineral Production	177
	Gudrun Franken, Jürgen Vasters, Ulrike Dorner, Philip Schütte, Dirk Küster, and Uwe Näher	
13	Peace and Security by Resources Self-Subsistence Strategies	187
	Susanne Hartard	
14	Responsible Material Flow Management: The Case of Waste Management in Developing Countries	201
	Johann Fellner	

Part V Water Conflict Prevention by Water Resource Management

15	Water Gap: The Overuse of Fresh Water	213
	Thomas Kluge	
16	The Management of Water Resources Under Conditions of Scarcity in Central Northern Namibia	231
	Martin Zimmermann, Marian Brenda, Alexander Jokisch, and Wilhelm Urban	

Part VI Resource Aspects in Renewable Energy Technologies

17	Sustainable Land Use: Food Production or Fuels	245
	Anna Hennecke and Nils Rettenmaier	
18	Strategic Resources for Emerging Technologies	259
	Volker Zepf, Benjamin Achzet, and Armin Reller	
19	Perspectives on Photovoltaic Energy Conversion: Dependency on Material Choices	273
	Wolfram Jaegermann	

Competition and Conflicts on Resource Use

Hartard, S.; Liebert, W. (Eds.)

2015, VI, 288 p. 64 illus., 39 illus. in color., Hardcover

ISBN: 978-3-319-10953-4