## **Contents**

Pr	reface	v
Lis	st of Abbreviations	xvi
Ta	ble of Treaties	xxi
I	Historical Development	1
1	From the Beginnings of International Environmental Law to the Stockholm	2
	Conference (1972)	3
	1.1 Early Stages and the Interwar Period 1.2 From 1945 to 1972	3
	1.2 FIOIII 1943 to 1972	4
2	From Stockholm to the Rio Conference (1992)	7
	2.1 The Stockholm Conference	7
	2.2 Impacts of the North-South Divide on International Environmental Law	8
	2.3 International Treaty Practice since 1972	10
	2.4 Other Activities	11
3	From Rio to the Johannesburg Conference (2002)	13
	3.1 The Rio Conference	13
	3.2 Rio Outcomes	14
	3.2.1 The Concept of 'Sustainable Development'	15
	3.2.2 Legally Non-Binding Instruments	16
	3.2.3 Multilateral Environmental Agreements (MEAs)	18
	3.2.4 Institutional Innovations	18
	3.2.5 Rio Evaluated	19
	3.3 Post-Rio Process	19
4	Johannesburg and Beyond	23
	4.1 The Johannesburg Summit	23
	4.2 Johannesburg Outcomes	23
	4.2.1 'Type 1 Outcome': The Political Declaration and the Plan of	
	Implementation	24
	4.2.2 'Type 2 Outcome': Partnership Initiatives	25
	4.2.3 Johannesburg Evaluated	26
	4.3 From Johannesburg to Copenhagen (2009)	27

II	Key Concepts in International Environmental Law	31
5	'Key Concepts': Meaning, Underlying Ideas and Classification 5.1 'Key Concepts' of International Environmental Law: Meaning and Role 5.2 Ethical Sources of International Environmental Law Key Concepts	33 33 35 35
	5.2.1 Solidarity	36
	<ul><li>5.2.2 Justice</li><li>5.3 Classification of International Environmental Law Norms</li></ul>	37
_	O.L. ITamas?	39
6	'No Harm'	39
	<ul><li>6.1 Historical Development</li><li>6.2 Function and Normative Quality</li></ul>	40
	6.2 Function and Normative Quarty	41
	6.3 Substantive Obligations 6.3.1 Preventing Significant Transboundary Harm	41
	6.3.2 No Balancing of Interests	42
	6.3.3 Disregard of 'Due Diligence'	42
	6.3.4 Standard and Burden of Proof	43
	6.3.5 Status	44
	6.4 Procedural Obligations	44
	6.4.1 Contents and Scope	44
	6.4.2 Status	45
	6.5 Breach of the 'No Harm' Rule	45
7	Precautionary Action	47
1	7.1 Historical Development	47
	7.1 Ristorical Development 7.2 References to Precautionary Action in International Environmental Practice	49
	7.2.1 Multilateral Environmental Agreements	49
	7.2.2 Decisions of International Courts	51
	7.3 Conception and Meaning	52
	7.4 Effects	54
	7.5 Normative Quality and Status	55
8	Polluter Pays	57
O	8.1 Origin	57
	8.2 Applicability and Meaning	58
	8.3 Normative Quality and Status	59
9	Common but Differentiated Responsibilities	61
7	9.1 Historical Development of CBDR	61
	9.2 Underlying Ideas and Conceptual Approach of CBDR	63
	9.3 Interpretation of CBDR	64
	9.4 CBDR in International Environmental Treaty Practice	66
	9.4.1 Reference to CBDR in Single MEAs	66

	9.4.2 Conditionality of Environmental Protection and Compliance	
	Assistance?	69
	9.5 Normative Quality and Status	69
	9.6 CBDR and Future North-South Co-operation	70
10	Sustainable Development	73
10	10.1 Historical Development	73
	10.2 Meaning and Function	76
	10.3 Normative Quality and Status	79
	10.4 Sustainable Use—A Special Emanation of Sustainable Development  10.5 Sustainable Development—An Approach for Bridging the North–South	82
	Divide	83
	Divide	03
Ш	Key Issues in Current International Environmental Law	85
11	Freshwater Resources	87
	11.1 Survey	87
	11.2 Case Law	92
	11.3 General Instruments	94
	11.3.1 The UN Convention on the Law of the Non-Navigational Uses of	
	International Watercourses	94
	11.3.2 The UNECE Convention on the Protection and Use of	
	Transboundary Watercourses and International Lakes	96
	11.3.3 The 2008 Draft Articles on the Law of Transboundary Aquifers	98
	11.4 Specific Instruments	99
	11.4.1 Africa	99
	11.4.2 America	102
	11.4.3 Asia	105
	11.4.4 Europe	107
	11.4.5 Middle East	111
	11.5 Conclusions	112
12	Oceans and Marine Resources	115
	12.1 Survey	115
	12.2 The Legal Framework: UNCLOS	118
	12.3 Protection of the Marine Environment	121
	12.3.1 State of the Marine Environment	121
	12.3.2 All Types of Pollution	122
	12.3.3 Pollution from Ships	126
	12.3.4 Pollution by Dumping of Wastes	128
	12.3.5 Pollution from Land-Based Sources and Atmospheric Pollution	129
	12.3.6 Pollution from Sea-Bed Activities	130
	12.3.7 Intervention in Case of Marine Pollution Incidents	132

## x CONTENTS

	12.4 Conservation and Management of Marine Living Resources	133
	12.4.1 State of the Marine Living Resources	133
	12.4.2 Fish	134
	12.4.3 Mammals	138
	12.5 Conclusions	140
13	Air, Ozone, Climate and Outer Space	145
	13.1 Survey	145
	13.2 Transboundary Air Pollution	149
	13.2.1 LRTAP Convention and Related Protocols	149
	13.2.2 Canada-US Air Quality Agreement	153
	13.3 Ozone Layer Depletion	154
	13.3.1 Ozone Convention	154
	13.3.2 Montreal Protocol	155
	13.4 Global Climate Change	159
	13.4.1 Climate Change Convention	159
	13.4.2 Kyoto Protocol	160
	13.4.3 From Kyoto to Copenhagen: Building a Post-2012 Climate	
	Protection Regime	164
	13.5 Outer Space Activities and Environmental Protection	171
	13.6 Conclusions	173
14	Flora, Fauna and Biological Diversity	177
	14.1 Survey	177
	14.2 Flora and Fauna	181
	14.2.1 The Protection of Habitat	181
	14.2.2 Regulating Trade in Endangered Species: CITES	184
	14.2.3 Protecting Migratory Species	188
	14.2.4 Other Instruments	190
	14.3 Biological Diversity	192
	14.3.1 The Biodiversity Convention	192
	14.3.2 Access and Benefit-Sharing: Bonn Guidelines and Nagoya Protocol	196
	14.3.3 The International Treaty on Plant Genetic Resources	198
	14.3.4 Trading Genetic Material: The Biosafety Protocol	200
	14.4 Forests	201
	14.5 Soil	205
	14.6 Conclusions	209
	17.0 Colletasions	20)
15	Wastes and Hazardous Substances	211
	15.1 Survey	211
	15.2 Control of Transboundary Movements of Wastes	215
	15.2.1 The Basel Convention	215
	15.2.2 The Bamako Convention	218

	15.3 International Regulation of Hazardous Substances 15.3.1 The Rotterdam Convention 15.3.2 The Stockholm Convention 15.3.3 Conventions on Nuclear Materials	219 219 221 222
	15.4 Conclusions	224
16	Procedural Environmental Obligations	227
-7	16.1 Basic Observations	227
	16.2 Information, Notification and Consultation in Interstate Relations	227
	16.2.1 Situations of Likely Transboundary Environmental Harm	228
	16.2.2 Situations of Transboundary Environmental Emergency	228
	16.3 Environmental Impact Assessment (EIA)	230
	16.4 Participatory Rights of Non-Governmental Actors	234
	16.4.1 'Public Participation' in General	234
	16.4.2 The Aarhus Convention	236
	16.5 Conclusions	239
IV	International Environmental Governance I:	
	'Setting the Rules of the Game'	241
17	International Environmental Governance	243
ror	17.1 Theoretical Premises and Policy Framework	243
	17.2 Actors	245
	17.2.1 States	247
	17.2.2 International Organisations	249
	17.2.3 Treaty Bodies	253
	17.2.4 Private Actors	255
	17.3 Forms of Action	256
	17.3.1 Law-Making, Implementation and Ways to Ensure Compliance	256
	17.3.2 Treaty-Based Legislative Environmental Governance	258
	17.3.3 Treaty-Based Administrative Environmental Governance	259
	17.4 Multilevel Governance	261
18	International Environmental Treaty-Making and Treaty Regime-Building	265
	18.1 Treaty Negotiation and Treaty Conclusion in General	265
	18.1.1 Procedural Aspects	265
	18.1.2 Substantive Aspects	267
	18.2 Levels of Treaty-Making	268
	18.3 Regulatory Approaches to Treaty-Making	269
	18.3.1 'Framework Convention and Protocol Approach'	270
	18.3.2 'Convention and Annexes Approach'	272
	18.4 Simplified Amendment Procedures Regarding Treaties, Protocols	
	and Anneves	273

	18.4.1 Amendments of Treaties and Protocols	273
	18.4.2 Amendments and Adjustments of Annexes	274
	18.4.3 COPs' Decision-Making Procedures	275
	18.5 Conflicts between Different MEAs and Their Settlement	277
	18.5.1 Parallel, Overlapping and Conflicting MEAs	277
	18.5.2 Article 30 VCLT; Lex Posterior and Lex Specialis; Harmonising	
	Treaty Interpretation	278
	18.5.3 Treaty Co-ordination by Means of Interinstitutional Co-operation	279
19	Customary International Environmental Law; Environmental Jus Cogens and	
	Obligations Erga Omnes	281
	19.1 Customary International Law in General	281
	19.1.1 Meaning and Function of Customary International Law	281
	19.1.2 Formation of Customary International Law	282
	19.2 Customary International Environmental Law	283
	19.2.1 The Dynamics of Customary International Environmental Law	283
	19.2.2 Examples of Existing or Emerging Rules of Customary	
	International Environmental Law	285
	19.3 Environmental Jus Cogens and Obligations Erga Omnes	286
20	International Environmental 'Soft Law'	289
	20.1 Theoretical Premises	289
	20.2 Legally Non-Binding Agreements between States	291
	20.3 Interinstitutional Non-Legal Arrangements	294
	20.4 Recommendations of International Organisations	295
21	Private Environmental Governance	299
	21.1 Introduction	299
	21.2 Contribution of Private Actors to International Environmental	
	Law-Making	299
	21.2.1 NGO Involvement in Environmental Treaty-Making	300
	21.2.2 Private Actor Contributions to the Development of Non-Treaty	
	Norms	301
	21.3 Environmental Standard-Setting	302
	21.3.1 Distinguishing Environmental Standards from Environmental	
	Law-Making	302
	21.3.2 Categorising Standards	304
	21.3.3 Ensuring Compliance with Private Standards	306
	21.3.4 Inherent Limitations of Private Standard-Setting	307
	21.4 International Environmental Partnerships	308
	21.4.1 The Emergence of Partnerships in International Environmental	
	Law	308
	21.4.2 Partnerships in Practice	310

	21.4.3 Assessing the Contribution of Partnerships to International Environmental Governance	313
v	International Environmental Governance II: Ensuring Compliance	315
22	Compliance Control	317
22	22.1 Compliance Control and Assistance as 'Active Treaty Management'	317
	22.2 The Legal Basis of Compliance-Control Procedures	321
	22.3 The Procedural Framework	325
	22.3.1 Trigger Mechanisms	326
	22.3.2 Verification	328
	22.3.3 Evaluation	330
	22.3.4 Measures in Response to Non-Compliance	332
	22.3.5 Procedural Principles and Safeguards	333
	22.4 Institutional Setting	336
	22.5 Conclusions	339
23	Compliance Assistance	343
	23.1 The Concept of Compliance Assistance	343
	23.2 Typology	345
	23.2.1 Capacity-Building	345
	23.2.2 Transfer of Technology	346
	23.2.3 Financial Mechanisms	348
	23.3 Conditionality of Assistance	349
	23.4 Institutional Setting	351
	23.4.1 Tailor-Made Institutions	351
	23.4.2 The Global Environment Facility	353
	23.5 Conclusions	357
24	Responsibility and Liability	359
	24.1 Introduction	359
	24.2 State Responsibility	361
	24.2.1 2001 ILC Draft Articles	361
	24.2.2 Case Law	364
	24.3 State Liability	366
	24.4 Civil Liability	368
	24.4.1 Oil Pollution and Other Hazardous Substances	369
	24.4.2 Nuclear Energy	371
	24.4.3 Wastes	373
	24.4.4 The 1993 Liability Convention	373
	24.5 Conclusions	374

25	Environmental Dispute Settlement 25.1 Survey	377 377
	25.2 Non-Judicial Dispute Settlement	378
	25.3 Judicial Dispute Settlement	379
	25.3.1 The ICJ and Other Permanent International Courts	380
	25.3.2 International Arbitration	382
	25.3.3 Quasi-Judicial Dispute Settlement	383
	25.4 Dispute Settlement and Compliance Control	386
	2011 Biopute Settlement und Compriance Conner	
VI	Relationship between International Environmental Law and Other Areas	
	of International Law	389
26	•	391
	26.1 Environmental Human Rights Protection in General	391
	26.2 Environmental Human Rights Protection in Practice	393
	26.2.1 United Nations	393
	26.2.2 Africa	395
	26.2.3 Americas	396
	26.2.4 Asia	398
	26.2.5 Europe	399
	26.3 Environmental Rights of Indigenous Peoples	402
	26.4 Rights of Environmental Migrants	405
27	Environmental Protection and International Peace and Security	411
	27.1 Peace, Security and the Environment: A Multifaceted Relationship	411
	27.2 The Law of Armed Conflict	412
	27.2.1 Treaty Law Applicable to International Armed Conflicts	413
	27.2.2 Customary Law Applicable to International Armed Conflicts	416
	27.2.3 The Law Applicable to Non-International Armed Conflicts	417
	27.3 The Applicability of MEAs in Times of Armed Conflict	417
	27.4 Environmental Impact of Arms Control and Disarmament Obligations	418
	27.5 Conclusions	419
28	Environmental Protection and International Economic Law	423
	28.1 Conflict or Complementarity?	423
	28.2 WTO Law	424
	28.2.1 The Development of WTO Law	424
	28.2.2 The GATT Treaty Framework	426
	28.2.3 Case Law Related to Article XX GATT	427
	28.2.4 The TBT and the SPS Agreements	430
	28.2.5 The WTO Committee on Trade and Environment	432
	28.2.6 The Relationship between WTO Agreements and MEAs	433
	28.3 Trade Issues beyond the WTO	435

## CONTENTS xv

28.4 International Financial Institutions	437
28.5 Conclusions	437
VII Perspectives	439
Current State of Global Environmental Co-operation	439
Reasons for Deficient Environmental Co-operation	440
North–South Dichotomy	440
Current Challenges and Trends in Global Environmental Co-operation	441
Ensuring More Effective Treaty Compliance	443
Ways and Means to Enhance International Environmental Law	444
Index	447