

Contents

List of Contributors XIX

1 Management of Transboundary Waters: An Overview 1

Asit K. Biswas

1.1 Introduction 1

1.2 Importance of Transboundary Waters 3

1.3 Magnitude and Distribution of Transboundary Waters 6

1.4 Complexities of Managing Transboundary Waters 8

1.5 Roles Played by International Organizations 9

1.6 Legal Regimes for Managing Transboundary Waters: An Analysis 12

1.7 Future Implications of the UN Convention 14

1.8 Conclusions 17

Acronyms..... 18

References..... 18

Annex I. Ratification Status of the Convention on the Law
of the Non-Navigational Uses of International Watercourses 19

2 The Southern African Hydropolitical Complex 21

Anthony Turton

2.1 Introduction 21

2.2 The Oregon School..... 22

2.3 The Maryland School 27

2.4 The Oslo School 30

2.5 Pulling It All Together: The Tshwane School..... 33

2.6 The Southern African Hydropolitical Complex as a Concept 35

2.7 The Incomati River: A Pivotal Basin in the SAHPC..... 39

2.8 The Cunene River: An Impacted Basin in the SAHPC 42

2.9 The Limpopo River: A Pivotal Basin in the SAHPC 47

2.10 The Okavango/Makgadikgadi River: An Impacted Basin in the
SAHPC 51

2.11 The Orange River: A Pivotal Basin in the SAHPC 54

2.12 The Zambezi River: An Impacted Basin in the SAHPC 57

2.13 Conclusion	62
Acknowledgements	65
Acronyms	65
References	67
 3 Okavango River Basin	81
<i>Thayer Scudder</i>	
3.1 Introduction	81
3.2 Constraints	85
3.3 Permanent Okavango River Basin Water Commission (OKACOM)	96
3.4 Suggestions on the Way Forward.....	98
Acknowledgements	101
Acronyms	101
References	101
 4 Water Management in the Jordan River Basin: Towards an Ecosystem Approach	105
<i>Odeh Al-Jayyousi and Ger Bergkamp</i>	
4.1 Introduction	105
4.2 Water Allocations along the Jordan River: A Historical Perspective	106
4.3 Principles for Allocations of Water in Shared Drainage Basins.....	112
4.4 The Institutional Imperative of the Jordan River Basin	114
4.5 Towards an Ecosystem Approach for the Jordan River Basin	115
4.6 Conclusions and Lessons Learned	119
References	120
 5 Transboundary Cooperation Between Finland and Its Neighbouring Countries	123
<i>Timo Kotkasaari</i>	
5.1 Introduction	123
5.2 Finland's Cooperation with Sweden	130
5.3 Finland's Cooperation with Norway	132
5.4 The Frontier Watercourse Agreement Between Finland and Russia	133
5.5 Conclusions and Future Challenges	138
References	140

6 Management of Ganges-Brahmaputra-Meghna System: Way Forward	143
<i>Asit K. Biswas</i>	
6.1 Introduction	143
6.2 Partnerships for Regional Development.....	144
Acronyms.....	163
References.....	163
 7 Indus Waters and the 1960 Treaty Between India and Pakistan	 165
<i>Chandrakant D. Thatte</i>	
7.1 Introduction	165
7.2 The Indus River Basin.....	165
7.3 Irrigation Up to the Twentieth Century	176
7.4 Developments Until the Independence and Partition in 1947	177
7.5 Indus Basin Development from 1947 to 1960.....	183
7.6 The Indus Water Treaty, 1960 and After.....	187
7.7 Implementation of the IWT	195
7.8 Baglihar Hydroelectric Project.....	198
7.9 Summing-up.....	201
Acknowledgements.....	206
References.....	206
 8 The Mekong: IWRM and Institutions	 207
<i>Katri Mehtonen, Marko Keskinen and Olli Varis</i>	
8.1 Introduction	207
8.2 IWRM, Rivers and Institutions.....	208
8.3 Mekong River and Its Development.....	209
8.4 Regional Institutions in the Mekong Basin	212
8.5 Institutional Cooperation	218
8.6 Lessons Learned	219
8.7 Conclusions: IWRM as an Approach, Not as a Goal	221
Acknowledgements	223
Acronyms	223
References.....	224

9 The Upstream Superpower: China's International Rivers	227
<i>James E. Nickum</i>	
9.1 Introduction	227
9.2 Geography	229
9.3 History and Sovereignty.....	231
9.4 Borders as Buffer Zones.....	234
9.5 China's Other Border Rivers.....	236
9.6 Current Issues: A Chinese Checklist	240
9.7 Implications and Lessons for the Future	241
Acknowledgements	242
References	242
10 Management of the North American Great Lakes	245
<i>Marcia Valiante</i>	
10.1 Introduction.....	245
10.2 Evolution of Great Lakes Governance	250
10.3 Strengths and Weaknesses of the Great Lakes Governance Regime	257
10.4 Looking to the Future.....	263
10.5 Conclusion	264
Acronyms	265
References	266
11 The Rio de la Plata River Basin: The Path Towards Basin Institutions	269
<i>Lilian del Castillo Laborde</i>	
11.1 Introduction.....	269
11.2 Building a Basin Institutional Framework	272
11.3 The Río de la Plata Basin Satellite Understandings	278
11.4 International Programmes with International and Regional Organizations	284
11.5 A Fresh Approach	286
Acronyms	288
References	288
Annex	290
Index	293