Table of Contents

Acknowledgments About the Authors	xii xiv
Preface	xxi
Chapter 1 Not Another Crisis!	1
Why Is Water Important?	1
Some Water Facts	4
Chapter 2 From Abundance to Scarcity in 25 Years	15
The River Jordan	18
The South Asian Groundwater Phenomenon	25
The Murray-Darling Basin	30
The Colorado River	35
Lessons from History	40
Chapter 3 Causes of Water Scarcity	45
Introduction	45
Blue and Green Water	48
Causes of Water Scarcity	48
Population Growth Impact	50
Dietary Change	52
Biofuel Production	53
Urbanization, Globalization, and Other Factors	55 55
Climate Change Impact	56
Conclusion	57
Conclusion	57
Chapter 4 Climate Change and Water	59
What Are the Most Likely Impacts of Climate Change?	61
Climate Change Impacts in Asia	66
Climate Change Impacts in Australia	70
Does Water Have a Role in Mitigating Climate Change?	72
Adapting to Climate Change	73
Conclusion	75 75
Conclusion	75
Chapter 5 Agriculture and Water	77
Why Is Irrigation So Important?	92
Virtual Water and Water Footprints	95
How Can We Achieve More "Drop Per Drop"?	97
Urban Water Reuse for Agriculture	100
Conclusion	101
Chapter 6 Water, Food, and Poverty	103
The Big Picture–Farming and Poverty	105
Nature and Poverty	107
Irrigation and Poverty–Learning from Asia	107
Groundwater and Poverty	112
Women, Water, and Food	114
Water as Welfare	116
Conclusion	117
001101401011	117

Chapter 7 Integrating Water Planning and Management Integrated Water Resources Management	
Drinking Water and Sanitation in the Developing World	122
What Happens to Our Waste?	126
Recycling and Reuse of Wastewater	128
Multiple Use Water Systems	133
Conclusion	135
Chapter 8 Water Governance for People and the Environment	139
Understanding Water's Unique Properties	142
A New Blueprint	144
Going Local	146
The Participation Principle	148
The Participation Principle Paggarizing Informal Institutions The Commons and Community	150
Recognizing Informal Institutions-The Commons and Community Management	152
Rivers	153
Conclusion	155
Chapter 9 Water Rights and Water Costs	157
Water Allocation Mechanisms	159
South African Water Policy Water Allocation and Pricing in the United States	160 162
The Murray-Darling Basin, Australia	166
The Situation in Other Countries	169
The Economics of Water	170
Lessons from Complexity?	176
Conclusion	178
Chapter 10 Solving the World's Water Problems	183
1. If You Can't Measure It, You Can't Manage It	185
2. Treasure the Environment	187
3. Reform Water Governance	189
4. Revitalize Agricultural Water Use	192
5. Manage Urban and Industrial Demand	198
6. Empower the Poor and Women in Water Management	201
Conclusion	204
Endnotes	207
Chapter 1	207
Chapter 2	207
Chapter 3	209
Chapter 4	210
Chapter 5	211
Chapter 6	213
Chapter 7	214
Chapter 8	215
Chapter 9 Chapter 10	216 218
onaptor 10	210
Index	221