



Brief Table of Contents

Preface to the Third Edition xix

Acknowledgments xxiii

1. Introduction: Individuals, Societies, and Pragmatic Environmentalism 1

Part I: Living in a Material World

2. Greenhouse Gases: Warmer Isn't Better 17
3. Waste: Our Sinks Are Almost Sunk 44
4. Biodiversity: Society Wouldn't Exist Without It 68
5. Water: There's No Substitute 89

Part II: At the Intersection of Ecology and Society

6. Population: A Problem of Quantity or Quality? 115
7. Transportation: Beyond Air Pollution 138
8. Food: From Farm to Fork 162
9. Energy Production: Our Sun-ny Prospects 187

Part III: Organizing a Sustainable Society

10. Political Economy: Making Markets Fair and Sustainable 209
11. Governance: Biases and Blind Spots 232
12. Inequality and Growth: Prosperity for All 251

Part IV: Shifting the Focus to Results

13. From Our Beliefs to Our Behaviors: Pragmatic Environmentalism in Action 281

Glossary 308

References 313

Index 344



Expanded Table of Contents

Preface to the Third Edition xix

Acknowledgments xxiii

Chapter 1. Introduction: Individuals, Societies, and Pragmatic Environmentalism 1

Individualism: Too Much and Not Enough 2

The Contribution of the Social Sciences 4

Material Things Have Momentum 7

The Messy Relationship between Behaviors and Attitudes 10

The Journey Ahead 12

Important Concepts 13

Discussion Questions 14

Suggested Additional Readings 14

Relevant Internet Links 14

Suggested Videos 14

ECONNECTION 1.1. Some of Those Deep Sociological Drivers 9

Part I: Living in a Material World

Chapter 2. Greenhouse Gases: Warmer Isn't Better 17

Fast Facts 18

Implications 19

Urban Areas 20

Food Security 24

Children, Women, and the Elderly 25

Climate Change Refugees 28

Solutions 31

Environmental Movements Matter 31

Stabilization Triangle and Wedges	33
Behavioral Change	35
Green Building	35
Geoengineering	38
Carbon Markets and Offsets	39
Important Concepts	42
Discussion Questions	42
Suggested Additional Readings	42
Relevant Internet Links	42
Suggested Videos	42

ECONNECTION 2.1. The US Public's Knowledge of Climate Change 19

ETHICAL QUESTION 2.1. The Most Threatened Are the Least Responsible 21

CASE STUDY 2.1 African Americans Are Disproportionately Exposed to Extreme Heat 22

CASE STUDY 2.2. Climate Change and the Wine Industry 25

ECONNECTION 2.2. Climate Change Linked to Food-Related Vulnerabilities for Certain Populations 26

ECONNECTION 2.3. Notes from a Filmmaker's Diary 28

CASE STUDY 2.3. Climate Refugees from Indonesia and Bangladesh 29

MOVEMENT MATTERS 2.1. Beyond Coal and Its Unusual Bedfellows 32

ECONNECTION 2.4. Examples of Geoengineering, Mitigation, and Adaptation 38

ECONNECTION 2.5. Biochar 41

Chapter 3. Waste: Our Sinks Are Almost Sunk 44

Fast Facts 45

Implications 47

Energy Waste and the Life-Cycle Analysis 49

Recycling 51

Food Waste 53

Waste and Public Health 59

E-Waste 61

Solutions 63

MSW Management Alternatives from around the World 63

Extended Producer Responsibility 64

Important Concepts 66

Discussion Questions 66

Suggested Additional Readings 67

Relevant Internet Links 67

Suggested Videos 67

CASE STUDY 3.1. The Great Pacific Garbage Patch	48
ETHICAL QUESTION 3.1. What Ought to Be Most Valued?	51
CASE STUDY 3.2. The Close Loop Fund and Recent Recycling Trends	53
ECONNECTION 3.1. The Recycling Loophole	54
ETHICAL QUESTION 3.2. Public Health and Value Judgments	61
ECONNECTION 3.2. E-Waste and Public Health	62
MOVEMENT MATTERS 3.1. The Fight against Packaging	64
ECONNECTION 3.3. Closed Loop Fund and the Amazon Effect	66

Chapter 4. Biodiversity: Society Wouldn't Exist Without It 68

Fast Facts 69

Implications 70

 Changing Definitions of Biodiversity 70

 Biodiversity: The Fuel Driving Ecosystem Services 75

 Biocultural Diversity 77

 Biopiracy 78

Solutions 80

 Community Conservation 80

 Agrobiodiversity Conservation 84

Important Concepts 87

Discussion Questions 87

Suggested Additional Readings 88

Relevant Internet Links 88

Suggested Videos 88

ECONNECTION 4.1. Thinking about Ecosystem Services
 Conceptually 72

ETHICAL QUESTION 4.1. Sophie's Choice: What If We Can't Save
 Them All? 73

ECONNECTION 4.2. The Tragedy of the Commodity 73

ETHICAL QUESTION 4.2. The Power of Conservation Maps 75

ECONNECTION 4.3. The Irreplaceable Bee 76

ETHICAL QUESTION 4.3. Sustainability: For Whom and toward What
 End? 81

ECONNECTION 4.4. Socioecological Benefits Known to Arise from
 Community Conservation 83

CASE STUDY 4.1. Participatory Forest Management in Kenya 84

MOVEMENT MATTERS 4.1. Open Source Seed 85

CASE STUDY 4.2. The Seed Bank That Makes Memories 86

ECONNECTION 4.5. Moral Framing on Conservation Behaviors 87

Chapter 5. Water: There's No Substitute 89

- Fast Facts 89
- Implications 94
 - Bottled Water 95
 - Privatizing Water 96
 - Agriculture 99
 - Climate Change 103
- Solutions 104
 - Water as a Human Right at the Right Value 104
 - Water Governance 109
- Important Concepts 110
- Discussion Questions 111
- Suggested Additional Readings 111
- Relevant Internet Links 111
- Suggested Videos 111

CASE STUDY 5.1. China's Water Woes 94

ECONNECTION 5.1. The IMF and the World Bank 97

ECONNECTION 5.2. US Bureau of Reclamation 99

CASE STUDY 5.2. Neoliberalism and Water Privatization: The Case of India 100

CASE STUDY 5.3. Desalinization in California 105

MOVEMENT MATTERS 5.1. Grassroots Organizations Take On Nestlé in North America 108

CASE STUDY 5.4. Micro-Watershed Councils in Mexico and Guatemala 109

Part II: At the Intersection of Ecology and Society**Chapter 6. Population: A Problem of Quantity or Quality? 115**

- Fast Facts 116
- Implications 117
 - Greenhouse Gases 117
 - Urban Sprawl 117
 - Food 121
 - Feeding a Growing Nonhuman Animal Population 123
 - Feeding a Growing Automobile Population 124
- Solutions 125
 - Socioeconomic Development 127
 - The Future Role of Cities 131
 - The Case for a Population Explosion 133
 - "Up Rather Than Out": If It Works for Cities, Can It Work for Farms? 134
- Important Concepts 136
- Discussion Questions 136

Suggested Additional Readings 136

Relevant Internet Links 136

Suggested Videos 137

ECONNECTION 6.1. From IPAT to STIRPAT 118

ETHICAL QUESTION 6.1. Do Countries Have a Right to Their Fair Share of CO₂ Emissions? 122

CASE STUDY 6.1. Japan: A Rapidly Shrinking Country 126

CASE STUDY 6.2. Socioeconomic Development in Kerala, India 129

ETHICAL QUESTION 6.2. Whose Behaviors Should Change? 130

CASE STUDY 6.3. Family Planning in Ethiopia 130

CASE STUDY 6.4. Contextualizing Urban Density 133

Chapter 7. Transportation: Beyond Air Pollution 138

Fast Facts 140

Implications 141

Pollution and Public Health 141

Habitat and Biodiversity 145

Community 147

Solutions 148

Dense, Livable, Intermodal Cities 149

From Street Hierarchy to Interconnectivity 154

Disincentivizing the Car 156

Important Concepts 160

Discussion Questions 160

Suggested Additional Readings 161

Relevant Internet Links 161

Suggested Videos 161

ECONNECTION 7.1. Effective Speed 143

ECONNECTION 7.2. Social Capital 147

ECONNECTION 7.3. Community Severance 148

CASE STUDY 7.1. The Rise of Bike-Share Programs 151

ETHICAL QUESTION 7.1. Value Judgments Embedded in Transportation Policy 153

ECONNECTION 7.4. High-Occupancy Vehicle Lanes 153

CASE STUDY 7.2. “Daylighting” the Cheonggyecheon Stream in South Korea 155

CASE STUDY 7.3. Buses and Trains Are Not Useful to Most People 156

ECONNECTION 7.5. Have Cars Reached Their Peak? 158

MOVEMENT MATTERS 7.1. The Rise of Public- and Micro- Transit Movements 159

CASE STUDY 7.4. The London Congestion Charge 160

Chapter 8. Food: From Farm to Fork 162

Fast Facts 163

Implications 167

Environmental Impacts 167

Community Impacts 170

Malnutrition and the Green Revolution 171

The “Treadmills” of Agriculture 175

Solutions 177

Agroecology 177

La Via Campesina and Other Peasant-Based Movements 179

Urban Gardens 183

Important Concepts 184

Discussion Questions 185

Suggested Additional Readings 185

Relevant Internet Links 185

Suggested Videos 186

CASE STUDY 8.1. Mobile Bay Jubilee 169**ECONNECTION 8.1.** Fish In Fish Out (FIFO) Ratio 169**ECONNECTION 8.2.** Negative Impacts of Industrialized Farms 171**ECONNECTION 8.3.** Yes! We Have No Bananas 176**ECONNECTION 8.4.** Agroecology: Growing More Than Food and Fiber 178**CASE STUDY 8.2.** Landless Workers’ Movement (MST) 180**MOVEMENT MATTERS 8.1.** Food Sovereignty Movement Scores
Victory in Ecuador, and Beyond 181**Chapter 9. Energy Production: Our Sun-ny Prospects 187**

Fast Facts 188

Implications 189

“Clean” Coal 190

Hydraulic Fracturing (aka Fracking) 191

Nuclear Power 195

Solutions 198

Efficiency and Curtailment 199

Renewables 202

Incentivizing Renewables and Household Efficiency 203

Important Concepts 205

Discussion Questions 205

Suggested Additional Readings 205

Relevant Internet Links 206

Suggested Videos 206

- CASE STUDY 9.1.** Three Gorges Dam 188
- CASE STUDY 9.2.** Incentivizing Carbon Capture 191
- ECONNECTION 9.1.** Mountaintop Removal Mining 192
- ECONNECTION 9.2.** Floating on a Cloud ... of Fossil Fuel Emissions 193
- ECONNECTION 9.3.** More Cheap Fracking Plastic 194
- MOVEMENT MATTERS 9.1.** The Fight over Local Control 197
- CASE STUDY 9.3.** Fukushima Nuclear Disaster as “Normal Accident” 198
- ECONNECTION 9.4.** Social Sciences and Energy Transitions 202
- ECONNECTION 9.5.** Social Norms and Behavior 204

Part III: Organizing a Sustainable Society

Chapter 10. Political Economy: Making Markets Fair and Sustainable 209

Fast Facts 212

Implications 213

The Growth Imperative 214

The Treadmill of Production 215

Internal Contradictions 216

Metabolic Rift 216

Another Contradiction of Capitalism 218

Globalization of Environmental Goods and Bads 219

Critiquing the Environmental Kuznets Curve 220

World-Systems Framework 222

Solutions 222

Total Cost Accounting 224

Fair versus Free Trade 226

Important Concepts 230

Discussion Questions 230

Suggested Additional Readings 230

Relevant Internet Links 231

Suggested Videos 231

- CASE STUDY 10.1.** Macroeconomic Rebound Effect 210
- ECONNECTION 10.1.** Treadmill/Metabolic Rift: Declining Global Fish Stocks 219
- ECONNECTION 10.2.** Capital Shaping Humans in Its Image: A Third Contradiction? 221
- ECONNECTION 10.3.** Forest Transition Theory 223
- ECONNECTION 10.4.** “Apolitical Ecologies” and Foucauldian Governance 227
- ECONNECTION 10.5.** Fair Trade 228
- MOVEMENT MATTERS 10.1.** Italy’s Gruppi di Acquisto Soledale (GAS): Solidarity Purchasing Groups 229

Chapter 11. Governance: Biases and Blind Spots 232

Fast Facts 232

Implications 233

Welfare Economics and Cost–Benefit Analyses 233

Tyranny of the Present: Discounting 236

The Self-Interested Straw Person 238

Solutions 240

From Tragedy to Drama 241

Absolute Sustainability 243

The Precautionary Principle 246

Important Concepts 249

Discussion Questions 249

Suggested Additional Readings 249

Relevant Internet Links 249

Suggested Videos 250

ETHICAL QUESTION 11.1. Unpacking “Science” 235**ECONNECTION 11.1.** Discounting and Forest Management 237**MOVEMENT MATTERS 11.1.** Dams: Making Changes to How Things Are Counted 239**CASE STUDY 11.1.** Grassland Management in Inner Mongolia 241**CASE STUDY 11.2.** Reducing Emissions from Deforestation and Forest Degradation 244**Chapter 12. Inequality and Growth: Prosperity for All 251**

Fast Facts 252

Implications 252

Rethinking Growth 253

The Sociology of Consumption 259

Social Comparison 260

Creation of Self-identity 260

Specialization 260

Sociotechnical Systems 260

Planned Obsolescence 261

Environmental Justice 262

Solutions 264

A Postgrowth Society 264

Development as Freedom, Justice, and Empowerment 273

Important Concepts 276

Discussion Questions 276

Suggested Additional Readings 276

Relevant Internet Links 276

Suggested Videos 277

- ECONNECTION 12.1.** Freedom Isn't Free, and Apparently Best in Moderation 257
- ECONNECTION 12.2.** The Plight of Native Americans 265
- CASE STUDY 12.1.** Links between Commercial Shrimp Farms and Slavery 266
- ETHICAL QUESTION 12.1.** Is There a Right Level of Inequality? 267
- ECONNECTION 12.3.** Consume Less, Yes ... But What About That Next Day Shipping? 268
- CASE STUDY 12.2.** Kellogg's Six-Hour Day 269
- ECONNECTION 12.4.** Community Capitals Framework 274
- MOVEMENT MATTERS 12.1.** Fighting for Environmental Justice in China 275

Part IV: Shifting the Focus to Results

Chapter 13. From Our Beliefs to Our Behaviors: Pragmatic Environmentalism in Action 281

Fast Facts 281

Implications 284

Knowledge and Worldviews 284

Denial and Countermovements 288

Consumerism, Advertising, and Marketization 288

Solutions 290

Advertisements, Freedom, and the Public Good 290

Collaborative Consumption 293

Globalization of Environmental Concern 296

Pro-Environmental Behavior 301

Social Movements 302

Pragmatic Environmentalism 304

Important Concepts 305

Discussion Questions 306

Suggested Additional Readings 306

Relevant Internet Links 306

Suggested Videos 307

ECONNECTION 13.1. Living Worlds Apart 282

ETHICAL QUESTION 13.1. Is Pollution Natural? 285

ECONNECTION 13.2. The "Money Makes You a Jerk" Thesis 291

ECONNECTION 13.3. Every Cloud Has a Silver Lining: From "Waste" to "Untapped Idling Capacity" 294

ECONNECTION 13.4. Not All Sharing is the Same: When "Collaborative Consumption" Harms Social Relations 297

CASE STUDY 13.1. Buycott 298

ECONNECTION 13.5. The New Environmental Paradigm (NEP) 298

Glossary 308

References 313

Index 344

Part IV: Shifting the Focus to Results

Chapter 13. From Our Beliefs to Our Behavior: Pragmatic Environmentalism in Action 281

 Introduction 281

 Impediments 284

 Knowledge and Willpower 284

 Doubt and Cognitive Dissonance 288

 Organizational Incentives and Marketing 288

 Solutions 290

 Advertisement, Freedom, and the Public Good 290

 Collaborative Consumption 293

 Globalization of Environmental Concerns 296

 Pro-Environmental Behavior 301

 Social Movements 302

 Pragmatic Environmentalism 304

 Important Concepts 305

 Discussion Questions 306

 Suggested Additional Readings 306

 Relevant Internet Links 306

 Suggested Videos 307

 ECONNECTION 13.1. Living Wiser About 295

 ETHICAL QUESTION 13.1. Pollution Treatment: How to Pay? 295

 ECONNECTION 13.1. The Airline Wars: How to Save? 295

 ECONNECTION 13.1. Food Cloud Has a Silver Lining: From Virtuous to Vicious? 295

 Discussion 294

 ECONNECTION 13.1. Not All Spring Is the Same: Why? 295

 ECONNECTION 13.1. Not All Spring Is the Same: Why? 295

 Suggested Videos 277