

Contents

Contributors xi

Part I Conceptual Framework

Chapter 1
A Framework for Understanding Change 3
F. Stuart Chapin, III, Carl Folke, and Gary P. Kofinas

Chapter 2
Managing Ecosystems Sustainably: The Key Role
of Resilience 29
F. Stuart Chapin, III

Chapter 3
Sustaining Livelihoods and Human Well-Being
during Social–Ecological Change 55
Gary P. Kofinas and F. Stuart Chapin, III

Chapter 4
Adaptive Co-management in Social–Ecological
Governance 77
Gary P. Kofinas

Chapter 5
Transformations in Ecosystem Stewardship 103
Carl Folke, F. Stuart Chapin, III, and Per Olsson

Part II Stewarding Ecosystems for Society

Chapter 6
Conservation, Community, and Livelihoods:
Sustaining, Renewing, and Adapting Cultural
Connections to the Land 129
Fikret Berkes, Gary P. Kofinas,
and F. Stuart Chapin, III

Chapter 7
Forest Systems: Living with Long-Term Change 149
Frederick J. Swanson and F. Stuart Chapin, III

Chapter 8
Drylands: Coping with Uncertainty, Thresholds,
and Changes in State 171
D. Mark Stafford Smith, Nick Abel, Brian Walker,
and F. Stuart Chapin, III

Chapter 9
Freshwaters: Managing Across Scales in Space and Time . . 197
Stephen R. Carpenter and Reinette Biggs

Chapter 10
Oceans and Estuaries: Managing the Commons 221
Carl Walters and Robert Ahrens

Chapter 11
Coastal Marine Systems: Conserving Fish
and Sustaining Community Livelihoods
with Co-management 241
Evelyn Pinkerton

Chapter 12
Managing Food Production Systems for Resilience 259
Rosamond L. Naylor

Chapter 13
Cities: Managing Densely Settled Social–Ecological
Systems 281
J. Morgan Grove

Chapter 14
The Earth System: Sustaining Planetary Life-Support
Systems 295
Oran R. Young and Will Steffen

Part III Integration and Synthesis

Chapter 15
Resilience-Based Stewardship: Strategies for
Navigating Sustainable Pathways in a Changing World . . . 319
F. Stuart Chapin, III, Gary P. Kofinas, Carl Folke,
Stephen R. Carpenter, Per Olsson, Nick Abel,
Reinette Biggs, Rosamond L. Naylor, Evelyn
Pinkerton, D. Mark Stafford Smith, Will Steffen,
Brian Walker, and Oran R. Young

Abbreviations 339

Glossary	341
References	355
Index	387



<http://www.springer.com/978-0-387-73032-5>

Principles of Ecosystem Stewardship
Resilience-Based Natural Resource Management in a
Changing World

Chapin III, F.S.; Kofinas, G.P.; Folke, C. (Eds.)

2009, XII, 401 p., Hardcover

ISBN: 978-0-387-73032-5