
Contents

List of Contributors	v
List of Abbreviations and Acronyms	vii
Preface and Acknowledgements	ix
Part I The Nature of Environmental Change	1
1 The Global Environmental Future <i>Neil Roberts</i>	3
2 Remote Sensing of Environmental Change <i>Roy Haines-Young</i>	22
Part II Global Climate Change	45
3 Past Climates and Future Greenhouse Warming <i>F. Alayne Street-Perrott and Neil Roberts</i>	47
4 Historic Records and Recent Climatic Change <i>Mike Hulme</i>	69
5 Numerical Modelling of Global Climates <i>Ann Henderson-Sellers</i>	99
Part III Ice and Ocean	125
6 Global Warming and Periglacial Landscapes <i>Eduard A. Koster</i>	127
7 Ice Volumes and Climate Change <i>David Sugden and Nick Hulton</i>	150
8 Sea-level Response to Climate <i>Michael J. Tooley</i>	172
9 Tropical Coral Islands – an Uncertain Future? <i>Tom Spencer</i>	190
Part IV The Hydrological System	211
10 Surface Water Acidification <i>Richard W. Battarbee</i>	213

11	Reconstructing the History of Soil Erosion <i>John Dearing</i>	242
12	Large-scale River Regulation <i>Geoff Petts</i>	262
Part V The Tropics		285
13	Savanna Landscapes and Global Environmental Change <i>Philip Stott</i>	287
14	Tropical Moist Forests: Transformation or Conservation? <i>Peter A. Furley</i>	304
15	Land Degradation in the Humid Tropics <i>Ian Douglas</i>	332
16	Dryland Degradation <i>Andrew Goudie</i>	351
Part VI Case Studies of Human Impact		369
17	Case 1: Changing Use of the Sahara Desert <i>Erhard Schulz</i>	371
18	Case 2: The Chesapeake Bay Estuarine System <i>Grace S. Brush</i>	397
19	Case 3: China's Yellow River Basin <i>Edward Derbyshire and Jingtai Wang</i>	417
20	Case 4: Deforestation in the Himalaya <i>Martin J. Haigh</i>	440
Bibliography		463
Index		523