

Environment and Society

Human Perspectives on
Environmental Issues

Sixth Edition

**Charles Harper and
Monica Snowden**





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Environment and Society

The sixth edition of *Environment and Society* continues to connect issues about human societies, ecological systems, and environments with data and perspectives from different fields. The text looks at the environment from a primarily sociological viewpoint and is designed for courses in Environmental Sociology and Environmental Issues in departments of Sociology, Environmental Studies, Anthropology, Political Science, and Human Geography. Clearly defined terms and theories help quickly acquaint students from various backgrounds with the material.

Every chapter of the sixth edition has been significantly revised with new research, data, concepts, and ideas. Also new to this edition, the end of each chapter features review questions, as well as additional examples and conceptual questions that help make macro-micro links between large-scale issues and lived experiences.

Charles Harper is Professor Emeritus of Sociology at Creighton University in Omaha, Nebraska. A member of the faculty since 1968, he has developed and taught numerous courses in the sociology department. Dr. Harper's teaching and scholarly interests involve the study of social change, globalization, the sociology of religion, social theory, and environmental sociology. He has published papers in a variety of academic journals.

Monica Snowden is Professor of Sociology at Wayne State College in rural Nebraska. Dr. Snowden earned her Ph.D. from the University of Nebraska-Lincoln. She has been teaching environmental sociology for nearly 20 years. Her research interests and publications are in the areas of environmental sociology, social inequalities and theory, teaching pedagogy, and most recently, barriers to access to health care.

Since its first edition, Harper and Snowden's *Environment and Society* has served as the core text in my Environmental Sociology course. It offers an essential, comprehensive and enduring foundation of relevant theory and subject areas in the field. The book lends itself well to interdisciplinary units of study that are easily customized and expanded upon with supplemental material and which students across disciplines are sure to find relevant and engaging.

Heidi Renate Ballard, *Associate Professor, Department of Sociology,
Criminology and Justice Studies, Otterbein University*

Harper and Snowden provide lucid, comprehensive coverage of the complex interconnections between the natural environment and the human social world. By deftly incorporating both natural and social scientific ideas and data, their analysis of environmental issues provides an especially valuable contribution to this vital area of study.

Angela G. Mertig, *Professor, Sociology and Anthropology,
Middle Tennessee State University*

Environment and Society, Sixth Edition, is an accessible and engaging foundational text for students in environmental studies. With their inclusion of approaches from both natural and social sciences, Harper and Snowden provide excellent content on contemporary environmental issues, from climate change and population growth to globalization and sustainability.

Patricia Stapleton, *Assistant Professor, Social Science &
Social Policy, Worcester Polytechnic Institute*

PREFACE

Environment and Society: Human Perspectives on Environmental Issues is intended to provide students and interested readers with an introduction to environmental issues. More specifically, it is about human connections and impacts on the environment—and vice versa. There are many specialized research reports and monographs about particular environmental topics and issues, but this book is intended to be an integrative vehicle for many different human and environmental issues.

Stimulated by the enormous growth of interest in environmental issues and problems in higher education, our own classes have a yeasty mix of students from biology, environmental science, the social sciences, and others from education, philosophy, and marketing. We have tried to write a book that is at least understandable to them all. Perceptive readers will note that in some places the book alternates between more elementary and advanced discussion. That is deliberate, because social science students know some things that natural science students do not, and vice versa. This book discusses blocks of material that incorporate contemporary environmental concerns, controversies, and discourses. A pervasive theme is that people and scholars bring very different intellectual views (*paradigms*) to the understanding of human–environmental issues. We think that these different views are not ultimately irreconcilable, but if you do not like attention given to different points of view, this is probably not the book for you.

The sixth edition is different from earlier editions because it has been significantly revised by introducing new research and data, concepts and ideas. The chapter topics are organized the same as the previous editions. But here is the layout of the chapters and the primary updates: Chapter One introduces basic concepts about environments, ecosystems, and human social systems, and various ways that people have understood and interacted with their biophysical environment. It examines how human–environment relations have come to be understood and studied by social scientists, and ends with a summary of the driving forces of human activity that impact the biophysical environment. In this edition, an environmental justice frame is introduced in this chapter as it is an organizing theme and referenced throughout the text. Chapter Two is an overview of the human “footprint” on the planet, which discusses some resources, resource depletion, and pollution issues. It has been significantly updated with new data on soil and land pressures, water scarcity and quality concerns, and pollution problems, including e-waste, recent data on air emissions, and concerns related to animal wastes and pollution. It includes case studies that address transboundary water conflicts, as well as the Flint water crisis in the United States. Chapter Three is about climate change and ozone depletion. Also, newly introduced to this edition are the ideas and concerns associated with planetary boundaries and the era of the Anthropocene. Chapter Three has been the most extensively revised to incorporate the most recent scientific understandings of the problem, points of continued misunderstanding and conflict, and the contribution sociology can make to understanding climate change adaptation and mitigation outcomes and policies. Importantly, it provides a thorough discussion of global climate diplomacy leading up to the Paris Climate Summit and the agreement it produced.

Chapter Four is about the energy systems that underlie all human economic activity, and the prospects for their transformation in the near future. In addition to updating energy trends more broadly, this edition includes new discussions over extreme fossil fuel production, notably hydraulic fracturing (fracking) and the Canadian tar/oil sands. It also provides updated information on advances in renewable energy and the development of smart grids. Chapter Five is about human population growth with special reference to food issues. It also has been updated with newer data about population growth, urbanization and growth of mega-cities, and global migration trends. Notably, the growing number of formally recognized refugees and internally displaced persons, as well as the growing number of persons worldwide displaced by environmental and climate change induced impacts—informally referred to as climate or environmental refugees. Chapter Six examines globalization and the prospects for more sustainable human–environment relations from several contemporary perspectives. It has been updated with new understandings and research on globalization, and global and domestic (mainly the US) inequality, as well as updated on trends and research on sustainability. It includes a new discussion of the growing body of research that shows a decoupling of economic growth and human well-being from energy use, introducing a new measure, the carbon intensity of well-being. Chapter Seven is about economic markets and politics. Upon reviewer recommendations it has been revised to better highlight the role of economic markets and market tools in driving environmental problems, and in policy developed to remedy them. As such, it includes a new discussion of environmental economics and ecological economics as frames for environmental decision making and policy. Also new to this chapter is a discussion of stranded assets, and how variations in the organizational structure of companies (large parent company with many subsidiaries vs. a smaller parent company with fewer subsidiaries) and how state environmental policy influences pollution trends. It also provides a critique of the business-as-usual economic policies and market tools used to address environmental problems, and promising market and political strategies to transition to a low carbon sustainable society.

Finally, Chapter Eight is about environmentalism in regard to ideology and action, and environmental social movements. It has been updated with theories and research on environmental and anti-environmental movement organizing, as well as recent research that looks at the strategies and successes of grassroots, national, and international environmental movement organizations. It also includes new public opinion research on environmental problems, especially in regard to climate change.

To make this a more user-friendly book, each chapter is followed by some review questions, and some questions and issues that attempt to help you make macro–micro links between large-scale issues and the lives of persons (Personal Connections). These personal connections are *not* review questions that summarize chapter content, but opportunities for dialogue between the book and its readers and between readers. They may be points of departure for discussion and argumentation. At the end of each chapter, there are some sources (both print and electronic) for further exploration of each topic (they also have been updated). You will also see web links embedded in each chapter as

they relate to specific topics. There is a glossary at the end of the book that defines social and environmental terms used that you may not be familiar with.

It is only fair that you have an idea of what kind of book you are going to be reading and how it is organized. It is about environmental problems themselves, but it has a *social science perspective*, and even more specifically, a *sociological perspective*. Thus, it will be more concerned with how these problems relate to human behavior, culture, and social institutions. The book also examines suggestions for changing the human–environment relationship to a more “sustainable” environment, society, and world order. Finally, it is important for you to know that this book will provide a broad overview that focuses more on the interconnections among a variety of issues rather than on any particular issue in great depth. *Many* other books and research papers provide in-depth coverage of specific topics.

Both of us are sociologists by training and our outlook on environmental issues is informed by environmental sociology, which is a subdiscipline that has developed rapidly over the last 40 years. Even so, no single scholarly discipline has a corner on truth about such a multifaceted and important topic. We have therefore attempted to give attention to the work and perspectives of economists, political scientists, anthropologists, geographers, and policy analysts as they address environmental and ecological issues. That makes this book as more of a social science work than a narrow treatise about environmental sociology. But of these fields, the book will draw most heavily on environmental sociology and economics.

SCIENCE, VALUES, AND LANGUAGE

We have tried to write an objective book about the human causes of and reactions to environmental problems and issues. But the book will not ignore scholarly or public controversy and disagreement. It addresses some outrageously difficult and multidimensional issues as reasonably as possible but—obviously—will not do so to everyone’s liking. Like all good social science or indeed, all good science of any kind, sooner or later it connects objective “facts” with things that people find important (values), and with criteria for making normative choices among them. As Thomas Dietz put it while speaking about the prospects for a new “human ecology”:

We must become a normative as well as a positive science. I don’t mean that human ecologists, as scientists, need continually to be engaged in advocacy. I do mean that we must use our analytical skills to develop arguments for the proper criteria for making decisions. We must help individuals and collectivities make better decisions by offering methods for handling value problems.

(1996/1997: 50)

There is, in truth, no completely value-free social science or any other kind of science. So, the book will talk about facts and data, but it also exhibits our own values, hopes,

and fears about the human predicament. Charlie, for instance, contends that it is impossible (and undesirable) to eliminate one's own opinions and values from scholarly work. But they should be labeled as such, you will see a lot of "we think ..." statements in front of those places where it is likely not all would agree. As it turns out, we (Charlie and Monica) agree on most of these issues, but in a few places you may see an "I" statement and then one of us will be identified.

It's fair to warn you that you will be reading a book that details a lot of bad news about human-environment interactions. Reading sustained fare about problems can be very depressing and can generate fatalism. But it is also important to note that we find some compelling reasons for hope (if not optimism) about the possibilities for a more positive future. Those reasons occur mainly in the later chapters of the book, so if what you read initially depresses you, *read on*. The book moves, after the early chapters, from the more physical to the more social dimensions of environmental issues, and from the more depressing litany of facts and problems to examining some possibilities for positive change. I (Charlie) discovered in writing the book, somewhat to my surprise, that if I am a pessimist, I am a hopeful one.

It also should be mentioned that the first five editions of this book were written by Charlie. Monica is just coming on board with the sixth edition. Charlie sought to write the book in an informal and unpretentious style. Hopefully, this tone has been maintained in the sixth edition.

ACKNOWLEDGMENTS

Every intellectual work is in some sense autobiographical. For Charlie his early college education (of many years ago!) was in biology and the physical sciences. But I subsequently pursued graduate studies in sociology, and for years I have been engaged in a professional life that has dealt only peripherally with environmental and ecological issues. This book attempts to put together the pieces of my education as a coherent whole in a way that addresses some important human and intellectual concerns of our times.

For Monica, I dreamt of sailing with Greenpeace to prevent the hunt and killing of whales. Instead, I ended up with a Ph.D. in sociology. As it turns out, I get really seasick, so it all worked out for the best! I am incredibly grateful that Charlie asked me to become a co-author of this book. Similar to Charlie, it has given me the opportunity to bring together my educational background and passions to address the big issues the world confronts.

Intellectual works are not just autobiographical. They involve the insights, encouragement, forbearance, and constructive criticisms from many others, and I (Charlie) need to thank them, particularly my colleagues and students at Creighton University. They contributed substantially to this work and tolerated me while I was working on it. Thanks especially to James T. Ault, who had the patience to read and critically comment on many parts of the book. Thanks to a succession of Graduate School Deans at Creighton University who provided modest but important material support.

I (Charlie) also want to thank an amazing network of environmental social scientists at other institutions who encouraged me through various editions. They include Fred Buttel (University of Wisconsin) before his recent untimely death; Eugene Rosa, Thomas Dietz, Robert Brulle, J. Allen Williams, Paul Stern (National Research Council); and Bruce Podobnik. I am especially indebted to William Freudenburg (University of California-Santa Barbara) and Riley Dunlap (Oklahoma State University) for their friendly criticism and encouragement over the years. I do not, of course, hold any of them responsible for errors of commission or omission.

Monica would like to also thank her students and colleagues that teach in the environmental studies minor at Wayne State College, particularly, Barbara Hayford who shared some of her research experiences from Mongolia to be incorporated in this edition (particularly Chapter Two), and Joe Blankenau and Mark Hammer. In addition, Monica is especially indebted to two former students. Rachel Schmitz (University of Texas Rio Grande Valley) who tirelessly read through drafts of chapters, provided invaluable feedback and edits, and revised the supplemental materials for this edition. And, Joshua Schmitz for helping update images included in this edition. In fact, the cover is his design!

Finally, we would like to thank the anonymous reviewers for their useful comments and suggestions for updates for this edition. Charlie would like to acknowledge an enormous debt of gratitude to former Prentice Hall sociology editor and publisher

Nancy Roberts, who encouraged our efforts in the early editions. We would like to thank Samantha Barbaro, social science editor, and Athena Bryan, editorial assistant at Routledge (Taylor & Francis). Monica is especially grateful to Samantha and Athena for their time and patience in answering her questions, often the same ones repeatedly, to make the transition from the previous publisher smooth, and in bringing me on as a co-author of this edition. They were the human voices of large, and anonymous organizations, who patiently helped to bring order to a complex project. Finally, Charlie would like to thank for her patient and loving support, his wife, Anne, to whom this book is dedicated. Monica would like to thank her family, Joe, Jackson and Amelia, for all the love and support they have always given her.

If you would like to contact Monica to share your comments and reactions to the book and its uses, please do so, at mosnowd1@wsc.edu.

ABOUT THE AUTHORS

Charles Harper is Professor of Sociology at Creighton University in Omaha, Nebraska. As a member of the faculty there since 1968, he has developed and taught numerous courses in the sociology department. Dr. Harper's teaching and scholarly interests involve the study of social change, globalization, the sociology of religion, social theory, and environmental sociology. He has published papers in a variety of academic journals.

Along with *Environment and Society*, Dr. Harper is the author of two other textbooks. Co-authored with Kevin Leicht, his book *Exploring Social Change: America and the World* (Prentice Hall, 2011) is now in its sixth edition. Another book, *Food, Society, and Environment*, originally published by Prentice Hall, is now in its second edition (Tafford Press, 2007). As an undergraduate, Dr. Harper studied biology and the natural sciences. He received a bachelor's degree from Central Missouri State University, a master's degree in sociology from the University of Missouri, and a Ph.D. in sociology from the University of Nebraska at Lincoln. He and his wife, Anne, live close to Creighton's campus near a "clan" of adult children, stepchildren, and grandchildren. He enjoys traveling, bicycling, and reading.

Monica Snowden is Professor of Sociology at Wayne State College in rural Nebraska. Dr. Snowden earned her Ph.D. from the University of Nebraska-Lincoln. She has been teaching environmental sociology for nearly 20 years. Her research interests and publications are in the areas of environmental sociology, social inequalities and theory, teaching pedagogy, and most recently, barriers to access to health care. Several of her publications have been co-authored with her husband Joe Blankenau, a political scientist at Wayne State College. She enjoys traveling, cooking, reading, gardening and hanging out with her husband, and two kids who do not want to hang out as much anymore, as one is now in college, and the other will be soon. She sees new adventures on the horizon.

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