

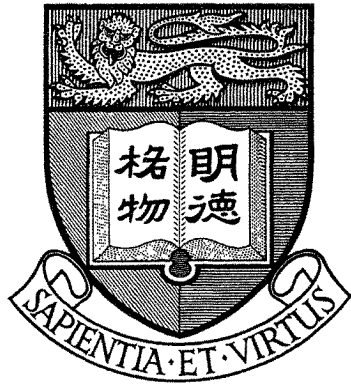
Natural Resources, Environment and Development in Ecological Perspective

A Sourcebook for Teaching and Research

edited by
Michael Micklin



UNIVERSITY OF HONG KONG
LIBRARIES



**Natural Resources, Environment and Development
in Ecological Perspective**

A Sourcebook for Teaching and Research

**Natural Resources, Environment and Development
in Ecological Perspective**

A Sourcebook for Teaching and Research

edited by

Michael Micklin
*Division of Research Grants
National Institutes of Health
Bethesda, MD, U.S.A.*



Centre of Urban Planning and Environmental Management
University of Hong Kong

© Centre of Urban Planning and Environmental Management,
University of Hong Kong 1996

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.

Published by
Centre of Urban Planning and Environmental Management
University of Hong Kong
Pokfulam Road
Hong Kong

ISBN 962-7589-08-X

Contents

Preface	vii
I. Ecology and Development	1
A. The Ecosystem Perspective	6
B. Varieties of Human Ecological Theory	11
C. Ecological Aspects of Third World Development	40
D. Measurement and Monitoring Issues	77
II. Natural Resources and the Development Process	89
A. Natural Resource Theory	98
B. Resource Stocks and Flows: Overview	110
C. Resource Issues I: Non-Fuel Minerals and Energy	114
D. Resource Issues II: Land, Water, Forests, and Biodiversity	121
III. Ecological Impacts of Third World Development	155
A. Environmental Quality and Development	162
B. Atmosphere and Climate	169
C. Land Degradation and Desertification	179
D. Human Settlements	185
IV. Planning for Sustainable Development	193
A. Obstacles and General Strategies	205
B. Managing Natural Resources	234
C. Protecting Environmental Quality	262
D. Ethical Issues	274
Author Index	285

Preface

The notion of *sustainable development* is at the same time one of the most overworked cliches in contemporary social science and an idea of crucial import to the future of human society. While it would be pointless to count the number of references to this concept over the past two decades, it is safe to say they are legion. Scores of books and articles have been devoted to the meaning of sustainability, the indicators in terms of which it can (or can't!) be measured, the barriers that prevent its attainment, and the strategies through which it might be realized. My reading of this literature, which grows with each passing month, leads me to several conclusions. First, debates over the conceptual, theoretical, methodological, and strategic issues of sustainability have one common denominator: the irrefutable symbiosis between collective human welfare and conditions and trends in the nonhuman environment. Second, the most pressing scientific and practical puzzles surrounding the accomplishment of a sustainable course of societal development are to be found in low-income countries. This is not to say that issues of sustainability are unimportant for the world's richer nations; rather, I contend simply that the challenges to scientific understanding and effective intervention are greatest with regard to the Third World. Finally, I conclude that current answers to questions about the causes and consequences of unsustainable development trends are unsatisfactory. Scientists and policymakers alike must rededicate themselves to the tasks of making better sense out of what we know and extending our knowledge so as to reduce ignorance of critical sustainability issues. This collection of materials linking development and the environment is intended to provide a convenient base for pursuing these objectives.

This Sourcebook began as a reading list for a graduate seminar I developed for the Department of Urban and Regional Planning at Florida State University in

1988. It reflects my efforts over more than two decades to forge a viable link between conceptual and theoretical approaches developed in the various social science disciplines and emerging practical concerns over the use and abuse of the physical environment. While the principal purpose of this work was originally to provide supplementary reading references for my students, particularly in connection with the preparation of term papers, theses, and dissertations, I have also distributed earlier versions of the bibliography to a number of colleagues and have been pleasantly surprised by their positive reactions.

Although the bibliographic citations are concentrated on materials pertaining to the developing countries, this work necessarily includes some items reflecting a global perspective and others, relatively limited in number, that deal with environmental issues in the more developed nations. In fact, of course, the environmental problems of less and more developed countries are inextricably intertwined, an elementary observation that is nonetheless fundamental to the ecosystem perspective. While no attempt is made to categorize materials by country or geopolitical region, most of the developing world is represented in one section or another.

The materials covered in this Sourcebook span a wide range of disciplines. In accord with the underlying theme of societal development, emphasis has been placed on the social sciences, most obviously anthropology, economics, geography, political science, and sociology. However, the references cited go far beyond the traditional boundaries of these disciplines because of my strong belief that the conceptual framework most suited for addressing the complexities of societal development in the modern world is that of human ecology, an inherently synthetic perspective.

Since 1972, and the first United Nations Conference on the Environment, the literature on environment and development has grown enormously. It is now so large that any bibliographic summary must be selective. The materials included here were available (or forthcoming) as of mid-1995. I have concentrated on publications that have appeared over the past decade or two, although citations to particularly useful earlier work are also included. The bibliography is selective in two additional respects. I have included only materials published in English, but this decision in no way suggests that they are necessarily of any greater importance than items written in other languages. I have also chosen to omit unpublished works that might not be readily available to the reader.

The Sourcebook is divided into four chapters, which are further divided into four sections. Each chapter contains a brief introduction that provides an overview of the types of materials referenced in the four sections as well as the intellectual issues they reflect. The reader should note that the works cited in the introductions are only illustrative of the principal topics and perspectives covered in the bibliographies that follow. A much larger number of citations is provided for

nearly every topic mentioned, and other references that are less directly relevant are also provided.

Chapter I, *Ecology and Development*, covers conceptual, theoretical, and methodological issues. It is premised on the assumptions that any consideration of relationships between environment and development must begin with the ecosystem perspective and that the eclectic field of human ecology provides a useful theoretical basis for understanding human-environment interactions. This chapter also includes sections focused specifically on ecological dimensions of the development process and on problems of environmental measurement and monitoring.

In Chapter II, *Natural Resources and the Development Process*, attention turns to the significance of selected natural resources for societal conditions and trends. The first section includes social science contributions to natural resource theory, and is followed by one devoted to assessments of global and regional resource stocks and flows. The remaining sections cover two categories of natural resources: non-fuel minerals and energy, and land, water, forests and biodiversity.

Chapter III, *Environmental Impacts of Third World Development*, is focused on environmental quality, or what some observers refer to as the "life support system" and "sink" functions of the environment. The first section includes general discussions of relations between environmental quality and development. The other sections are devoted to three specific dimensions of the human habitat: atmosphere and climate, land degradation and desertification, and the physical dimensions of human settlements, particularly cities.

Chapter IV, *Planning and Organizing for Sustainable Development*," examines the delicate problem of balancing the need for continued consumption of natural resources in the interest of improved human living standards with that of environmental preservation and conservation. Materials cited reflect the planning as well as the implementation phases of integrating environmental and development objectives. The first section covers major obstacles to and strategies and opportunities for accomplishing this task. The following two sections are focused on strategies and policies designed specifically for natural resource management and life support system protection, respectively. The final section includes works from the emerging field of environmental ethics.

Decisions about the chapter and section location of some references proved difficult, as I have not been able to review all of the materials included. Moreover, the most appropriate location of even those I was able to read was not always obvious. For example, some of the works cited provide both theoretical guidance and strategies for achieving sustainable development. Others encompass two or more of the different substantive areas into which the materials are organized. Thus some of the citations appear under two or more headings, and others could easily have been listed more frequently than they are. In the interest of parsimony

I have tried to minimize these duplicate citations. Users should be aware that the classification system adopted is necessarily imperfect.

Individuals associated with two institutions have been particularly helpful in bringing this project to fruition. During each of the past three winters I have spent approximately one month using materials located in the library at the University of Hong Kong. My work during the winters of 1993 and 1994 was made possible through an appointment as Visiting Fellow at the UHK's Centre of Urban Planning and Environmental Management, while during the winter of 1995 I was appointed as an Honorary Professor in the Department of Sociology. My thanks to Bill Barron and David Levin, respectively, for facilitating these affiliations. As I was preparing the final version of the bibliography I was faced with the inevitable problem that some references were incomplete. To the rescue came Peter Provan, director of the Johns Hopkins School of Advanced International Studies (SAIS) library. He and his assistant, Jim Fitch, provided an assortment of publication details with an alacrity for which I am most grateful. Finally, Dr. Anthony G.O. Yeh of the Centre of Urban Planning and Environmental Management facilitated arrangements for publication. Without his encouragement and cooperation this work might still be "in progress."

I. Ecology and Development

The collection of materials cited in this chapter is intended to provide a broad overview of the conceptual, theoretical, substantive, and methodological linkages between the ecological perspective and the study of societal development. During the past couple of decades it has become increasingly evident that the major changes observed in the organization of human societies are the result of complex interactions among three interdependent systems: population, environment, and social organization. While there is no question that it is analytically fruitful to examine each of these systems *as if* they were independent entities --- as seen, for example, in the disciplines of demography, bioecology, anthropology, sociology, geography, and economics --- understanding and explanation of the processes and outcomes of societal development requires a more comprehensive perspective. The kind of holistic outlook called for is found in the often ignored and sometimes misunderstood hybrid field of human ecology.

Section A of this chapter contains a limited set of references that outline the ecosystem perspective, in whole or in part. Of particular import for the nonspecialist are several book-length overviews and histories of the field of bioecology (e.g., Odum 1971; McIntosh 1985; Worster 1985; Bramwell 1989; Allen and Hoekstra 1992). In addition, however, I have included some classic discussions of modifications and elaborations of the ecosystem perspective that emerge when the role of the human species is given explicit attention (Duncan 1959, 1964; Hawley 1968; Boulding 1978; Moran 1984), as well as some alternative macroecological frameworks (e.g., Brown 1995). Finally, the critical influence of environmental conditions and processes on societal development is covered in recent publications devoted to the topic of *global change* (Clark 1989; Turner II, Clark, et al. 1990; Stern et al. 1992; McBean 1994). The remaining items cover specific aspects of the ecosystem perspective such as the idea of

carrying capacity, application of the principles of thermodynamics, and conceptualization of ecosystem processes.

In Section B the focus turns specifically to theoretical discussions of the human ecosystem. The number of references cited is necessarily large, as practitioners of a wide variety of social science disciplines have developed approaches based in one way or another on the ecological perspective. I have purposely chosen to provide relatively inclusive coverage for several reasons. First, representations of ecological thinking in the various social science disciplines differ markedly, and I believe it is useful to make available the widest possible range of ideas. Second, many of these approaches have yet to be applied to substantive issues related specifically to societal development when, if fact, they may offer new insights. For example, the approach typically labeled *organizational ecology* (Hannan and Freeman 1977, 1989a; Carroll 1984), which addresses questions of competition and survival among formal organizations, could usefully be transferred to studies of the development process.¹ Third, among the many varieties of human ecological theory none has proven to be superior in terms of generally accepted criteria for theoretical evaluation, e.g., parsimony, logical consistency or, most tellingly, predictive power. Future advances in the application of this perspective will require closer critical examination of alternative formulations. Finally, linkages between theoretical frameworks in human ecology and the resolution of practical problems of Third World development are still being forged. In short, I believe that there is much work ahead in terms of assessing the strengths and weaknesses of contending approaches to human ecological theory with specific reference to societal development. The wide range of theoretical ideas cited here is therefore intended to stimulate the ecological imagination.

Perhaps because social science applications of the ecological perspective were first evident within the field of sociology (Micklin 1984), the widest variety of disciplinary theories is found there. The most prominent and influential version is seen in theories of the internal organization of human societies (Hawley 1950, 1986; Duncan and Schnore 1959; Poston et al., 1984; Schnaiberg and Gould 1994). More recently, however, sociologists have renewed their concern with the process of societal evolution and how it is influenced by environmental constraints and opportunities (Lenski 1970; Catton 1980; Nolan 1984; Sanderson 1990; Lenski et al. 1991). Another group of sociologists (e.g., Catton and Dunlap 1978; Dunlap and Catton 1979b; Buttel 1987) has been more concerned with identification of broad societal orientations toward the environment and how they are reflected in collective efforts to deal with environmental problems.

Theories about society-environment connections have proliferated in other social sciences as well. The field of environmental economics has grown rapidly

¹The seeds of such an approach are seen in Hannan et al., 1995.

(Pearce and Warford 1993; Tisdell 1993). Particularly evident in recent years are views that are critical of neoclassical, market-oriented treatments of natural resource and pollution abatement issues (Martinez-Alier 1987; Costanza 1991; Berger 1994; Daly and Cobb 1994). Political scientists and policy analysts, sometimes adopting the banners of *ecopolitics* or *green political theory*, have concerned themselves with the influence of environmental issues on government decision-making and party politics on the national level, as well as their role in international disputes and agreements (Dryzek 1987; Dobson 1990; Atkinson 1992; Choucri 1993; Swift 1993; Gurtov 1994). While the environment is by definition central to the field of geography, new theoretical issues and orientations have arisen there as well (Hill and Hanson 1984; Smil 1994; Zimmerer 1994). And finally, some anthropologists continue to pursue the reciprocal relationship between culture and environment (Bennett 1976; Harris 1979; Jones 1987; Butzer 1990).

During the past few decades the study of Third World development has reflected increasing concern with environmental conditions and processes. On the one hand, maintenance of a continuous supply of natural resources and preservation of the environmental life support system are essential for socioeconomic development, however this ambiguous notion is defined. On the other hand, as societal development proceeds there can be little doubt that various dimensions of the natural environment are affected, sometimes for the better and sometimes for the worse. A voluminous literature has emerged from efforts to document, challenge, and otherwise elaborate these basic propositions, and is covered in Section C of this chapter.

There are numerous angles from which the relationship between environment and development can be approached. Many of the fundamental issues are captured in the ongoing debate over the concept of and barriers to *sustainable development* (Redclift 1987; Dixon and Fallon 1989; Pezzey 1992; Jacob 1994; Munasinghe and Shearer 1995b). To be sustainable, it is argued, socioeconomic transformations cannot destroy or damage irrevocably the physical systems on which they depend. Debate centers around the extent, causes, and remedies for the environmental havoc believed to result from local, national, regional, and global efforts to increase economic output and improve living standards.

Another hotly contested issue concerns the connections between population change --- particularly growth --- and the other major components of the global ecosystem, i.e., the physical environment and human social systems. The arguments presented range from those that portray the world as already suffering from serious over-population (Keyfitz 1991b, 1993; Brown et al., 1992) to those that find no justification for limiting population growth in the interest of ecological stability and/or improved opportunities for socioeconomic development (Simon 1981, 1986; Eberstadt 1995). Between these extremes one finds assessments that, while recognizing the necessity of the ultimate cessation of population growth, at

the same time avoid unqualified claims about causal connections between it and various environmental and development problems (Kelley 1988; Teitelbaum 1992/93; Merrick 1994; Preston 1994).

Another ecological issue of development that has emerged over the past decade concerns the implications of environmental change for national and global security (e.g., Mathews 1989; Gleick 1993; Myers 1993c). The most common argument in this vein is that deteriorating environmental conditions pose a major threat to political and economic stability as well as prospects for alleviating Third World poverty. An extension of this argument suggests that conflict over scarce environmental resources may well lead to violent confrontations between competing groups and/or nations (Diaz-Briquets 1986; Homer-Dixon 1991, 1994a; Choucri and North 1993b).

A final illustration of a key issue emanating from the reciprocal relationship between environment and development is seen in the controversy over the ecological impacts of international trade (Lutz 1992a; Berlin and Lang 1993; French 1993; Muñoz and Rosenberg 1993; Zaelke et al. 1993; Daly and Goodland 1994b, 1994c). Historically, most economists have viewed trade as a stimulant to development. Recently, however, attention has been concentrated on the environmental problems generated by international trade, including obvious ills such as resource exhaustion in very poor countries that have no alternative sources of income as well as more elusive issues regarding disincentives to protect environmental quality. Needless to say, arguments for a reduction in the volume of international trade face considerable resistance, regardless of accumulated evidence.

Section C also contains studies devoted to relationships between development and the environment in specific developing nations or geopolitical regions. Noteworthy examples of country studies include work focused on Brazil (Hall 1989; Moran 1993), China (Smil 1993; Edmonds 1994b), Honduras (Stonich 1993), India (Gadgil and Guha 1992), and Indonesia (Hardjono 1991a). Regional surveys are available for Latin America (Goodman and Redclift 1991), the Pacific Rim (Burnett 1992), Southeast Asia (Brookfield and Bryan 1993), and SubSaharan Africa (Lewis and Berry 1988; Rosenblum and Williamson 1990). The number of countries for which there is at least one detailed study of environment-development relationships is increasing annually, but systematic regional assessments and comparisons are still scarce.

As concern over the environmental dimensions of global and national development is translated into empirical research, literature concerned with methodological issues has begun to accumulate. Section D of this chapter provides relevant references. The principal topics addressed pertain to compilation of environmental indicators, refinement of measurement techniques, the problem of environmental valuation, and strategies for assessing the environmental impact of development activities.

In spite of continuing efforts to monitor changes in global, regional, and national environmental indicators (e.g., United Nations Environment Programme 1991; World Resources Institute et al. 1990, 1992, 1994), sources of data, particularly for the poorest countries, are limited and of dubious quality. In recent years the use of satellite monitoring technologies has shown considerable promise (McCloskey and Spaulding 1989; Greenland 1994; Running et al. 1994). Still, there is wide disagreement over the environmental impacts of development activities in Third World nations.

Several measurement issues have been emphasized. One that is still not resolved satisfactorily has to do with development of a metric for the concept of *sustainability* that is acceptable to investigators from differing disciplines (cf. Tisdell 1993; Blamey and Common 1994; Carpenter 1995). Another set of studies has attempted to model ecosystem processes under varying conditions (e.g., Robinson 1991; Maxwell and Costanza 1994; Shuttleworth 1994). Recognizing the significance of how humans perceive environmental conditions and trends, a few investigators have sought to assess environmental orientations of individuals (Lowe and Morrison 1984; Dunlap et al., 1993) and nation-states (Dietz and Kalof 1992), though data for the developing nations are rarely available. Finally, efforts to evaluate the degree of environmental risk are increasing (e.g., Stocking 1989; Hoare 1993; Misch 1994).

Doubtless the methodological issue that has received greatest attention over the past decade is that of environmental valuation, often approached from an accounting perspective. The problem is to assess accurately and comprehensively the real costs of human activities that deplete and degrade environmental conditions and functions. A variety of environmental accounting strategies have been developed (cf. Dasgupta and Maler 1989; El Sarafy 1991; Hannon 1991; Repetto 1992; Lutz 1993; Barbier 1994; Slesser and King 1994), and this approach is now being adopted by the United Nations (1993).

A. The Ecosystem Perspective

- Allen, T.F.H. and T.W. Hoekstra. 1992. *Toward a Unified Ecology*. New York: Columbia University Press.
- Amir, S. 1994. "The Role of Thermodynamics in the Study of Economic and Ecological Systems." *Ecological Economics* 10 (2): 125-142.
- Archives. 1990. "Ravenstein on Global Carrying Capacity." *Population and Development Review* 16 (March): 153-162.
- Arizpe, L. 1991. "The Global Cube." *International Social Science Journal* 43 (November): 599-608.
- Atkins, P.W. 1994. *The Second Law: Energy, Chaos, and Form*. New York: W.H. Freeman and Co.
- Barber, R.T., J.W. Murray, Jr., and J.J. McCarthy. 1994. "Biogeochemical Interactions in the Equatorial Pacific." *Ambio* 23 (1): 62-66.
- Begon, M., J.L. Harper, and C.R. Townsend. 1986. *Ecology: Individuals, Populations, and Communities*. Sunderland, MA: Sinauer Associates.
- Boulding, K.E. 1966. "The Economics of the Coming Spaceship Earth." Pp. 3-14 in *Environmental Quality in a Growing Economy*, ed. H. Jarrett. Baltimore: The Johns Hopkins University Press. [Also see H.J. Barnett, "Pressures of Growth Upon Environment." Pp. 15-20 in *Ibid.*]
- Boulding, K.E. 1978. *Ecodynamics: A New Theory of Societal Evolution*. Beverly Hills, CA: Sage Publications.
- Bramwell, A. 1989. *Ecology in the Twentieth Century: A History*. New Haven, CT: Yale University Press.
- Brown, J.H. 1995. *Macroecology*. Chicago: University of Chicago Press.
- Bruhn, J. 1974. "Human Ecology: A Unifying Science?" *Human Ecology* 2 (2): 105-125.
- Burns, T.P. and M. Higgashi (eds.). 1990. *Theoretical Studies of Ecosystems: The Network Perspective*. Cambridge: Cambridge University Press.
- Burton, I. and P. Timmerman. 1989. "Human Dimensions of Global Change: A Review of Responsibilities and Opportunities." *International Social Science Journal* 121 (August): 599-608.
- Clark, W.C. 1989. "The Human Ecology of Global Change." *International Social Science Journal*, 41(August): 315-345.
- Connell, J.H. and W.P. Souza. 1983. "On the Evidence Needed to Judge Ecological Stability and Persistence." *American Naturalist* 121: 789-824.
- Conway, G. 1985. "Agroecosystem Analysis." *Agricultural Administration* 20 (1): 31-55.
- DeFries, R. and T. Malone (eds.). 1989. *Global Change and Our Common Future*. Washington, DC: National Academy Press.

- Dice, L.R. 1955. *Man's Nature and Nature's Man: The Ecology of Human Communities*. Ann Arbor: University of Michigan Press.
- Duncan, O.D. 1959. "Human Ecology and Population Studies." Pp. 678-716 in *The Study of Population*, eds. P.M. Hauser and O.D. Duncan. Chicago: University of Chicago Press.
- Duncan, O.D. 1961. "From Social System to Ecosystem." *Sociological Inquiry* 31 (2): 140-149.
- Duncan, O.D. 1964. "Social Organization and the Ecosystem." Pp. 37-82 in *Handbook of Modern Sociology*, ed. R.E.L. Faris. Chicago: Rand-McNally.
- Ehrlich, P.R. 1986. *The Machinery of Nature*. New York: Simon and Schuster.
- Ehrlich, P.R. and J. Roughgarden. 1987. *The Science of Ecology*. New York: Macmillan.
- Ehrlich, P.R., A.H. Ehrlich, and J.P. Holdren. 1977. *Ecoscience: Population, Resources, Environment*. San Francisco: W.H. Freeman.
- Ellen, R. 1982. *Environment, Subsistence and System: The Ecology of Small-Scale Social Formations*. Cambridge: Cambridge University Press.
- Emmel, T.C. 1973. *An Introduction to Ecology & Population Biology*. New York: W.W. Norton.
- Freedman, B. 1989. *Environmental Ecology: The Impacts of Pollution and Other Stresses on Ecosystem Structure and Functioning*. London: Academic Press.
- Gell-Mann, M. 1994. *The Quark and the Jaguar: Adventures in the Simple and the Complex*. New York: W.H. Freeman.
- Georgescu-Roegen, N. 1971. *The Entropy Law and the Economic Process*. Cambridge, MA: Harvard University Press.
- Golley, F.B. 1984. "Historical Origins of the Ecosystem Concept in Biology." Pp. 33-49 in *The Ecosystem Concept in Anthropology*, ed. E.F. Moran. Boulder, CO: Westview Press.
- Golley, F.B. 1994. *A History of the Ecosystem Concept in Ecology*. New Haven, CT: Yale University Press.
- Graedel, T. 1994. "Industrial Ecology: Definition and Implementation." Pp. 23-41 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Hannah, L., D. Lohse, C. Hutchinson, J.L. Carr, and L. Lankerani. 1994. "A Preliminary Inventory of Human Distribution of World Ecosystems." *Ambio* 23 (4/5): 246-250.
- Hardin, G. 1993. *Living Within Limits: Ecology, Economics, and Population Taboos*. New York: Oxford University Press.
- Hawley, A.H. 1968. "Human Ecology." Pp. 328-337 in *International Encyclopedia of the Social Sciences*, ed. D.L. Sills, Vol. 4. New York: Crowell-Collier-MacMillan.
- Hawley, A.H. 1973. "Ecology and Population." *Science* 179 (23 March): 1196-1201.

- Hawley, A.H. 1982. "Ecology." Pp. 159-163 in *International Encyclopedia of Population*, ed. J.A. Ross. New York: Collier-Macmillan.
- Hill, A.R. 1987. "Ecosystem Stability: Some Recent Perspectives." *Progress in Physical Geography* 11 (3): 315-333.
- Holling, C.S. 1992. "Cross-Scale Morphology, Geometry, and Dynamics of Ecosystems." *Ecological Monographs* 62 (4): 447-502.
- Holling, C.S. 1995. "Sustainability: The Cross-Scale Dimension." Pp. 65-75 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Kassas, M. and N. Polunin. 1989. "The Three Systems of Man." *Environmental Conservation* 16 (Spring): 7-11.
- la Rivière, J.W.M. 1991. "Co-operation between Natural and Social Scientists in Global Change Research: Imperatives, Realities, Opportunities." *International Social Science Journal* 130 (November): 620-627.
- Levin, S.A. 1995. "Scale and Sustainability: A Population and Community Perspective." Pp. 103-114 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Lorius, C. and H. Oeschger. 1994. "Palaeo-Perspectives: Reducing Uncertainties in Global Change?" *Ambio* 23 (1): 30-36.
- Mahar, D.J., R. Muscat, J.W. Kirchner, G. Ledec, R.J. Goodland, and J.M. Drake (eds.) 1985. *Population Growth and Human Carrying Capacity: Two Perspectives*. World Bank Working Paper No. 690. Washington, DC: The World Bank.
- Malone, T.F. and R. Corell. 1989. "Mission to Planet Earth Revisited." Pp. 34-49 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- McBean, G.A. 1994. "Global Change Models --- A Physical Perspective." *Ambio* 23 (1): 13-18.
- McLaren, D.J. 1989. "The Earth System." Pp. 31-33 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- McIntosh, R.P. 1985. *The Background of Ecology: Concept and Theory*. Cambridge: Cambridge University Press.
- Meffe, G.K. and C.R. Carroll (eds.). 1994. *Principles of Conservation Biology*. Sunderland, MA: Sinauer Associates.
- Miller, R.B. 1991. "Social Science and the Challenge of Global Environmental Change." *International Social Science Journal* 130 (November): 609-617.
- Miller, R.B. 1994. "Interactions and Collaboration in Global Change across the Social and Physical Sciences." *Ambio* 23 (1): 19-24.
- Moore III, B. and B.H. Braswell. 1994. "Planetary Metabolism: Understanding the Carbon Cycle." *Ambio* 23 (1): 4-12.

- Moran, E.F. 1982. *Human Adaptability: An Introduction to Ecological Anthropology*. Boulder: Westview Press.
- Moran, E.F. 1984. "Limitations and Advances in Ecosystems Research." Pp. 1-32 in *The Ecosystem Concept in Anthropology*, ed. E.F. Moran. Boulder, CO: Westview Press.
- Ness, G., W.D. Drake, and S.R. Brechin (eds.). 1993. *Population-Environmental Dynamics: Ideas and Observations*. Ann Arbor: University of Michigan Press.
- Odum, E.P. 1969. "The Strategy of Ecosystem Development." *Science* (18 April): 262-270.
- Odum, E.P. 1971. *Fundamentals of Ecology*. 3rd edition. Philadelphia: W.B. Saunders.
- Odum, E.P. 1975. *Ecology: The Link Between the Natural and the Social Sciences*. Second Edition. Philadelphia: W.B. Saunders.
- Odum, E.P. 1993. *Ecology and Our Endangered Life-Support Systems*. Second edition. Sunderland, MA: Sinauer Associates.
- O'Neill, R.V., D.L. DeAngelis, J.B. Waide, and T.F.H. Allen. 1986. *A Hierarchical Concept of Ecosystems*. Princeton, NJ: Princeton University Press.
- Piel, G. 1992. *Only One World: Our Own to Make and to Keep*. San Francisco: W.H. Freeman.
- Pimm, S.L. 1984. "The Complexity and Stability of Ecosystems." *Nature* 307 (5949): 321-326.
- Pomeroy, L.R. and J.J. Alberts (eds.). 1988. *Concepts of Ecosystem Ecology: a Comparative View*. Berlin: Springer-Verlag.
- Postel, S. 1994. "Carrying Capacity: The Earth's Bottom Line." Pp. 3-21 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Putman, R.J. 1994. *Community Ecology*. London: Chapman and Hall.
- Rambler, M.B., L. Margulis, and R. Rester (eds.) 1989. *Global Ecology: Towards a Science of the Biosphere*. London: Academic Press.
- Reid, L. 1962. *The Sociology of Nature*. Harmondsworth: Penguin Books.
- Schulze, E.-D. and H.A. Mooney (eds.). 1993. *Biodiversity and Ecosystem Function*. Berlin: Springer-Verlag.
- Schulze, E.-D. and H. Zwolfer (eds.). 1987. *Potentials and Limitations of Ecosystem Analysis*. Berlin: Springer-Verlag.
- Siegel, P.M. 1984. "Human Ecology and Ecology." Pp. 21-49 in *Sociological Human Ecology*, eds. M. Micklin and H.M. Choldin. Boulder, CO: Westview Press.
- Simmons, I.G. 1974. *The Ecology of Natural Resources*. London: Edward Arnold.
- Smil, V. 1985. *Carbon-Nitrogen-Sulfur: Human Interference in Grand Biospheric Cycles*. New York: Plenum Press.

- Smith, E.A. 1984. "Anthropology, Evolutionary Biology, and the Explanatory Limitations of the Ecosystem Concept." Pp. 51-85 in *The Ecosystem Concept in Anthropology*, ed. E.F. Moran. Boulder, CO: Westview Press.
- Sprent, J.I. 1987. *Ecology of the Nitrogen Cycle*. Cambridge: Cambridge University Press.
- Stern, P.C. 1993. "A Second Environmental Science: Human-Environmental Interactions." *Science* 260 (25 June): 1897-1899.
- Stern, P.C., O.R. Young, and D. Druckman (eds.). 1992. *Global Environmental Change: Understanding the Human Dimensions*. Washington, DC: National Academy Press.
- Stewart, J.W.B., R. Victoria, and M.G. Wolman. 1992. "Global Cycles." Pp. 129-140 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Storer, J.H. 1953. *The Web of Life*. New York: New American Library.
- Street-Perrott, F.A. 1994. "Palaeo-perspectives: Changes in Terrestrial Ecosystems." *Ambio* 23 (1): 37-43.
- Turner II, B.L., W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer (eds.). 1990. *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*. Cambridge: Cambridge University Press.
- Turner II, B.L., R.E. Kasperson, W.B. Meyer, K.M. Dow, D. Golding, J.X. Kasperson, R.C. Mitchell, and S.J. Ratick. 1990. "Two Types of Global Environmental Change: Definitional and Spatial Scale Issues in their Human Dimensions." *Global Environmental Change* 1 (December): 14-22.
- United Nations Educational, Scientific, and Cultural Organization and Man in the Biosphere (MAB) Project. 1992. *Biohistory: The Interplay between Human Society and the Biosphere --- Past and Present*. Paris: UNESCO.
- Vernadsky, W.I. 1945. "The Biosphere and the Noosphere." *American Scientist* 33 (January): 1-12.
- Walker, B.H. 1994. "Landscape to Regional-Scale Responses of Terrestrial Ecosystems to Global Change." *Ambio* 23 (1): 67-73.
- Walter, H. and S.-W. Breckle. 1985. *Ecological Systems of the Geo-Biosphere: Ecological Principles in Global Perspective*. Berlin: Springer-Verlag.
- Wisniewski, R.L. 1980. "Carrying Capacity: Understanding Our Biological Limitations." *Humboldt Journal of Social Relations* 7: 55-70.
- Worster, D. 1985. *Nature's Economy: A History of Ecological Ideas*. Second Edition. Cambridge: Cambridge University Press.

B. Varieties of Human Ecological Theory

- Aguilera-Klink, F. 1994. "Some Notes on the Misuse of Classic Writings in Economics on the Subject of Common Property." *Ecological Economics* 9 (April): 221-228.
- Albrecht, D.E. and S.H. Murdock. 1990. *The Sociology of U.S. Agriculture: An Ecological Perspective*. Ames: Iowa State University Press.
- Alker, Jr., H.R. and P.M. Haas. 1993. "The Rise of Global Ecopolitics." Pp. 133-171 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Allen, P., D. Van Dusen, J. Lundy, and S. Gliessman. 1991. "Integrating Social, Environmental, and Economic Issues in Sustainable Agriculture." *American Journal of Sustainable Agriculture* 6 (1): 34-39.
- Amir, S. 1994. "The Role of Thermodynamics in the Study of Economic and Ecological Systems." *Ecological Economics* 10 (2): 125-142.
- Andrews, C., F. Berkhout, and V. Thomas. 1994. "The Industrial Ecology Agenda." Pp. 469-477 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Arizpe, L. and M. Velázquez. 1994. "The Social Dimensions of Population." Pp. 15-40 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Arrow, K.J. and A. Fisher. 1974. "Environmental Preservation, Uncertainty, and Irreversibility." *Quarterly Journal of Economics* 88 (2): 312-319.
- Arrow, K., B. Bolin, R. Costanza, P. Dasgupta, C. Folke, C.S. Holling, B.-O. Jansson, S. Levin, K.-G. Måler, C. Perrings, and D. Pimentel. 1995. "Economic Growth, Carrying Capacity, and the Environment." *Science* 268 (28 April): 520-521.
- Atkinson, A. 1992. *Principles of Political Ecology*. New York: Halstead Press.
- Ayres, R.U. and A.V. Kneese. 1969. "Production, Consumption, and Externality." *American Economic Review* 59 (June): 282-298.
- Bahenberg, G. and M. Dutkowski. 1993. "An Ecoregional Strategy Towards a Fault-Tolerant Human-Environment Relationship." Pp. 285-295 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Bailey, K.D. and P. Mulcahy. 1972. "Sociocultural Versus Neoclassical Ecology: A Contribution to the Problem of Scope in Human Ecology." *Sociological Quarterly* 13 (Winter): 37-48.
- Bailey, R. 1993. *Ecoscams: The False Prophets of Ecological Apocalypse*. New York: St. Martin's Press.
- Barbier, E.B. 1987. "The Concept of Sustainable Economic Development." *Environmental Conservation* 14: 101-110.

- Barlow, C. (ed.). 1991. *From Gaia to Selfish Genes: Selected Writings in the Life Sciences*. Cambridge, MA: The MIT Press.
- Barnard, A. 1983. "Contemporary Hunter-Gatherers: Current Theoretical Issues in Ecology and Social Organization." *Annual Review of Anthropology* 12: 193-214.
- Barron, D.N. and E. West. 1994. "A Time to Grow and a Time to Die: Growth and Mortality of Credit Unions in New York City, 1914-1990." *American Journal of Sociology* 100 (September): 381-421.
- Batie, S.S. 1989. "Sustainable Development: Challenges to the Profession of Agricultural Economics." *American Journal of Agricultural Economics* 71 (December) 1083-1101.
- Baum, J.A.C. and C. Oliver. 1992. "Institutional Embeddedness and the Dynamics of Organizational Populations." *American Sociological Review* 57 (August): 540-559.
- Baum, J.A.C. and J.V. Singh. 1994. "Organizational Niches and the Dynamics of Organizational Mortality." *American Journal of Sociology* 100 (September): 346-380.
- Beck, U. 1992. "From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment." *Theory, Culture & Society* 9: 97-123.
- Bell, D. 1977. "Are there 'Social Limits' to Growth?" Pp. 13-26 in *Prospects for Growth*, ed. D.K. Wilson. New York: Praeger.
- Bennett, J.W. 1976a. "Anticipation, Adaptation, and the Concept of Culture in Anthropology." *Science* 192 (28 May): 847-853.
- Bennett, J.W. 1976b. *The Ecological Transition: Cultural Anthropology and Human Adaptation*. New York: Pergamon.
- Bennett, J.W. 1980. "Human Ecology as Human Behavior: A Normative Anthropology of Resource Use and Abuse." Pp. 243-277 in *Human Behavior and Environment: Advances in Theory and Research*, Vol. IV: *Environment and Culture*, eds. I. Altman, A. Rapoport, and J.F. Wohlwill. New York: Plenum.
- Bennett, J.W. 1988. "'Cultural Ecology', the Concept of Socionatural System, and Lands at Risk in the Third World." *Environment, Technology, and Society* 51 (Winter): 7-12.
- Bennett, J.W. 1992. *Human Ecology as Human Behavior: Essays in Environmental and Development Anthropology*. New Brunswick, NJ: Transaction Books.
- Bennett, J.W. and K.A. Dahlberg, 1990. "Institutions, Social Organization, and Cultural Values." Pp. 69-86 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

- Benton, T. 1989. "Marxism and Natural Limits: An Ecological Critique and Reconstruction." *New Left Review* 178 (November/December): 51-86.
- Benton, T. 1991. "Biology and Social Science: Why the Return of the Repressed Should be Given a (Cautious) Welcome." *Sociology* 25 (1): 1-29.
- Berger, J. 1994. "The Economy and the Environment." Pp. 766-797 in *The Handbook of Economic Sociology*, eds. N.J. Smelser and R.J. Swedberg. Princeton, NJ: Princeton University Press.
- Berkes, F. (ed.) 1989. *Common Property Resources: Ecology and Community-Based Sustainable Development*. London: Belhaven.
- Bidwell, C.E. and J.D. Kasarda. 1985. *The Organization and Its Ecosystem: A Theory of Structuring in Organizations*. Greenwich, CT: JAI Press.
- Blaikie, P., T. Cannon, I. Davis, and B. Wisner. 1994. *Natural Hazards, People's Vulnerability, and Disasters*. New York: Routledge.
- Bocock, R. 1993. *Consumption*. New York: Routledge.
- Boeker, W.P. 1988. "Organizational Origins: Entrepreneurial and Environmental Imprintings at the Time of Founding." Pp. 33-51 in *Ecological Models of Organizations*, ed. G.R. Carroll. Cambridge, MA: Ballinger.
- Bookchin, M. 1984. *Toward an Ecological Society*. Montreal: Black Rose Books.
- Bookchin, M. 1988. "Social Ecology Versus Deep Ecology." *Socialist Review* 88 (3): 9-29.
- Boulding, K.E. 1979. "The Limits to Societal Growth." Pp. 317-327 in *Societal Growth: Processes and Implications*, ed. A.H. Hawley. New York: The Free Press.
- Boulding, K.E. 1981. *Evolutionary Economics*. Beverly Hills, CA: Sage Publications.
- Boulding, K.E. 1991. "What Do We Want to Sustain? Environmentalism and Human Evaluations." Pp. 22-31 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Boyce, J.K. 1994. "Inequality as a Cause of Environmental Degradation." *Ecological Economics* 11 (3): 169-178.
- Boyd, R. and P.J. Richerson. 1983. "Why is Culture Adaptive?" *Quarterly Review of Biology* 58 (2): 209-214.
- Boyd, R. and P.J. Richerson. 1985. *Culture and the Evolutionary Process*. Chicago: University of Chicago Press.
- Boyden, S. 1993. "Human Ecology and Biohistory: Conceptual Approaches to Understanding Human Situations in the Biosphere." Pp. 31-46 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Brechin, S.R., G.D. Ness, and W.D. Drake. 1994. "Integration of Population, Environment and Development Policies: Population and Environment." Pp. 15-28 in *Expert Group Meeting on Population, Environment and Sustainable*

- Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Brittain, J. and D.R. Wholey. 1989. "Assessing Organizational Ecology as Sociological Theory." *American Journal of Sociology* 95 (September): 439-444.
- Broussard, C.A. and G.L. Young. 1986. "A Reorientation of Niche Theory in Human Ecology: Toward a Better Explanation of the Complex Linkages Between Individual and Society." *Sociological Perspectives* 29 (April): 259-283. [Also see "Comments" by P. van den Bergh, *Ibid* (July), pp. 421-423 and by D.A. Sullivan, *Ibid*, pp. 423-424, and the "Reply to van den Bergh and Sullivan" by Broussard and Young, *Ibid*, pp. 427-432.]
- Brown, B.J., M.E. Hanson, D.M. Liverman, and R.W. Meredith, Jr. 1987. "Global Sustainability: Toward Definition." *Environmental Management* 11 (November): 713-719.
- Brown, H.S. 1954. *The Challenge of Man's Future*. New York: Viking Press.
- Brown, L.R. 1978. *The Twenty-Ninth Day: Accommodating Human Needs and Numbers to the Earth's Resources*. New York: W.W. Norton.
- Brox, O. 1990. "The Common Property Theory: Epistemological Status and Analytical Utility." *Human Organization* 49 (Fall): 227-235.
- Brüder, J., P. Preisendörfer, and R. Zeigler. 1992. "Survival Chances of Newly Founded Business Organizations." *American Sociological Review* 57 (April): 227-242.
- Buck, S.J. 1992. "Cultural Theory and Management of Common Property Resources." *Human Ecology* 17 (March): 101-116.
- Bunker, S.G. 1994. "Problems of Population and Environment in Extractive Economies." Pp. 277-301 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Burch, Jr., W.R. 1971. *Daydreams and Nightmares: A Sociological Essay on the American Environment*. New York: Harper and Row.
- Burgess, R. 1978. "The Concept of Nature in Geography and Marxism." *Antipode* 10 (1): 1-11.
- Burningham, K. and M. O'Brien. 1994. "Global Environmental Values and Local Contexts of Action." *Sociology* 28 (November): 913-932.
- Burns, T.R. and T. Dietz. 1992. "Cultural Evolution: Social Rule Systems, Selection and Human Agency." *International Sociology* 7 (3): 259-283. [Also see A. Strauss, "Cultural Evolution: An Interactionist Perspective," *Ibid* 8 (4), pp. 493-495 and C.C. Jaeger, "The Cultural Evolution of Rational Choice," *Ibid* 8 (4), pp. 497-503.]
- Buttel, F.H. 1976. "Social Science and the Environment: Competing Theories." *Social Science Quarterly* 57 (September): 307-323.

- Buttel, F.H. 1978. "Environmental Sociology: A New Paradigm?" *The American Sociologist* 13: 252-256.
- Buttel, F.H. 1986. "Sociology and the Environment: The Winding Road Toward Human Ecology." *International Social Science Journal* 109: 337-356.
- Buttel, F.H. 1987. "New Directions in Environmental Sociology." *Annual Review of Sociology* 13: 465-488.
- Buttel, F.H. 1992. "Environmentalism: Origins, Processes, and Implications for Rural Social Change." *Rural Sociology* 57 (Spring): 1-27.
- Butzer, K.W. 1989. "Cultural Ecology." Pp. 192-207 in *Geography in America*, eds. G.L. Gaile and C.J. Willmott. Columbus, OH: Merrill.
- Butzer, K.W. 1990. "The Realm of Cultural-Human Ecology: Adaptation and Change in Historical Perspective." Pp. 685-701 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Cantor, R. and S. Rayner. 1994. "Changing Perceptions of Vulnerability." Pp. 69-83 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Carello, C. 1993. "Realism and Ecological Units of Analysis." Pp. 121-140 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Carroll, G.R. 1981. "Dynamics of Organizational Expansion in National Systems of Education." *American Sociological Review* 46 (October): 585-599.
- Carroll, G.R. 1984. "Organizational Ecology." *Annual Review of Sociology* 10: 71-93.
- Carroll, G.R. 1985. "Concentration and Specialization: Dynamics of Niche Width in Populations of Organizations." *American Journal of Sociology* 90 (May): 1262-1283.
- Carroll, G.R. (ed.) 1988. *Ecological Models of Organizations*. Cambridge, MA: Ballinger.
- Carroll, G.R. and M.T. Hannan. "Density Dependence in the Evolution of Populations of Newspaper Organizations." *American Sociological Review* 54 (August): 524-541. [Also see L.G. Zucker, "Combining Institutional Theory and Population Ecology: No Legitimacy, No History." *Ibid*, pp. 542-545 and G.R. Carroll and M.T. Hannan, "On Using Institutional Theory in Studying Organizational Populations," *Ibid*, pp. 545-548.]
- Carroll, G.R. and Y.P. Huo. 1986. "Organizational Task and Institutional Environments in Ecological Perspective: Findings from the Local Newspaper Industry." *American Journal of Sociology* 91 (January): 838-874.
- Catton, Jr., W.R. 1974. "Depending on Ghosts." *Humboldt Journal of Social Relations* 2: 45-49.

- Catton, Jr., W.R. 1976a. "Can Irrupting Man Remain Human?" *BioScience* 26: 62-67.
- Catton, Jr., W.R. 1976b. "Toward Prevention of Obsolescence in Sociology." *Sociological Focus* 9: 89-98.
- Catton, Jr., W.R. 1976c. "Why the Future Isn't What It Used to Be (And How It Can Be Made Worse Than It Has to Be)." *Social Science Quarterly* 57 (September): 276-291.
- Catton, Jr., W.R. 1978. "Carrying Capacity, Overshoot, and the Quality of Life." Pp. 231-249 in *Major Social Issues: A Multidisciplinary View*, eds. J.M. Yinger and S.J. Cutler. New York: The Free Press.
- Catton, Jr., W.R. 1980. *Overshoot: The Ecological Basis of Revolutionary Change*. Urbana: University of Illinois Press.
- Catton, Jr., W.R. 1983. "Need for a New Paradigm." *Sociological Perspectives* 26 (March): 3-15.
- Catton, Jr., W.R. 1985. "Emile Who and the Division of What?" *Sociological Perspectives* 28 (July): 251-280.
- Catton, Jr., W.R. 1992. "Separation Versus Unification in Sociological Human Ecology." Pp. 65-99 in *Advances in Human Ecology*, Vol. 1, ed. L. Freese. Greenwich, CT: JAI Press.
- Catton, Jr., W.R. 1993. "Carrying Capacity and the Death of a Culture: A Tale of Two Autopsies." *Sociological Inquiry* 63 (Spring): 202-223.
- Catton, Jr., W.R. 1994. "Foundations of Human Ecology." *Sociological Perspectives* 37 (1): 75-95.
- Catton, Jr., W.R., and R.E. Dunlap. 1978a. "Environmental Sociology: A New Paradigm." *The American Sociologist* 13 (1): 41-49.
- Catton, Jr., W.R., and R.E. Dunlap. 1978b. "Paradigms, Theories, and the Primacy of the HEP-NEP Distinction." *The American Sociologist* 13: 256-259.
- Catton, Jr., W.R., and R.E. Dunlap. 1980. "A New Ecological Paradigm for Post-Exuberant Sociology." *American Behavioral Scientist* 24 (1): 15-47.
- Cernea, M. 1993. "The Sociologist's Approach to Sustainable Development." *Finance and Development* 30 (4): 11-13.
- Charles, A.T. 1994. "Towards Sustainability: The Fishery Experience." *Ecological Economics* 11 (3): 201-211.
- Chen, R.S. 1994. "The Human Dimension of Vulnerability." Pp. 85-105 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Chisholm, M. 1990. "The Increasing Separation of Production and Consumption." Pp. 87-101 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

- Choldin, H.M. 1978. "Social Life and the Physical Environment." Pp. 91-113 in *Handbook of Contemporary Urban Life*, ed. D. Street. San Francisco: Jossey-Bass.
- Choucri, N. (ed.) 1993a. *Global Accord: Environmental Challenges and International Responses*. Cambridge, MA: The MIT Press.
- Choucri, N. 1993b. "Introduction: Theoretical, Empirical, and Policy Perspectives." Pp. 1-40 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Choucri, N. 1993c. "Multinational Corporations and the Global Environment." Pp. 205-253 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Choucri, N. and R.C. North. 1993. "Global Accord: Imperatives for the Twenty-First Century." Pp. 477-507 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Christensen, P. 1989. "Historical Roots for Ecological Economics: Biophysical Versus Allocative Approaches." *Ecological Economics* 1 (1): 17-36.
- Christensen, P. 1991. "Driving Forces, Increasing Returns and Ecological Sustainability." Pp. 75-87 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Clark, C.W. 1990. *Mathematical Bioeconomics: The Optimal Management of Renewable Resources*. New York: John Wiley & Sons.
- Clark, M.E. 1991. "Rethinking Ecological and Economic Education: A Gestalt Shift." Pp. 400-415 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Clark, W.C. 1989. "The Human Ecology of Global Change." *International Social Science Journal* 41 (August): 315-45.
- Cohen, J.E. 1995. "Population Growth and Earth's Human Carrying Capacity." *Science* 269 (21 July): 341-346.
- Common, M. and C. Perrings. 1992. "Towards an Ecological Economics of Sustainability." *Ecological Economics* 6 (1): 7-34.
- Commoner, B. 1972. *The Closing Circle*. New York: Bantam.
- Costanza, R. (ed.) 1991. *Ecological Economics: The Science and Management of Sustainability*. New York: Columbia University Press.
- Costanza, R. 1992. "The Ecological Economics of Sustainability: Investing in Natural Capital." Pp. 106-118 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Costanza, R., L. Wainger, C. Folke, and K.-G. Mäler. 1993. "Modeling Complex Ecological Economic Systems: Toward an Evolutionary, Dynamic Understanding of People and Nature." *BioScience* 43: 545-555.

- Court, T. de la. 1992. "Critique of the Dominant Development Paradigm." *Development* 1992 (2): 42-45.
- Crook, J. 1989. "Introduction: Socioecological Paradigms, Evolution, and History: Perspectives for the 1990s." Pp. 1-36 in *Comparative Socioecology*, eds. V. Standen and R. Foley. Oxford: Blackwell.
- Crosby, A.W. 1986. *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*. New York: Cambridge University Press.
- Crumely, C.L. (ed.) 1994. *Historical Ecology: Cultural Knowledge and Changing Landscapes*. Santa Fe, NM: School of American Research Press.
- Cutter, S.L. 1994. "Environmental Issues: Green Rage, Social Change and the New Environmentalism." *Progress in Human Geography* 18 (2): 217-226.
- Dahlan, M.A. 1994. "Interrelationships Between Population and the Environment: Towards an Operational Framework." Pp. 10-14 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Daily, G.C., A.H. Ehrlich, and P.R. Ehrlich. 1994. "Optimum Human Population Size." *Population and Environment* 15 (July): 469-475.
- Daly, H.E. (ed.) 1973. *Toward a Steady-State Economy*. San Francisco: W.H. Freeman
- Daly, H.E. 1974. "The Economics of the Steady State." *American Economic Review* 64 (May): 15-21.
- Daly, H.E. 1977. *Steady-State Economics*. San Francisco: W.H. Freeman.
- Daly, H.E. 1991a. "Elements of Environmental Economics." Pp. 32-46 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Daly, H.E. 1991b. *Steady-State Economics*. Second edition. Washington, DC: Island Press.
- Daly, H.E. and J. B. Cobb, Jr. 1989. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Daly, H.E. and J.B. Cobb, Jr. 1994. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Second edition, Updated and Expanded. Boston: Beacon Press.
- D'Antonio, W.V., M. Sasaki, and Y. Yonebayashi. (eds.) 1994. *Ecology, Society & The Quality of Life*. New Brunswick, NJ: Transaction Books.
- de Groot, W.T. 1992. *Environmental Science Theory: Concepts and Methods in a One-World, Problem-Oriented Paradigm*. Amsterdam, Netherlands: Elsevier.

- Delacroix, J. and G.R. Carroll. 1983. "Organizational Foundings: An Ecological Study of the Newspaper Industries of Argentina and Ireland." *Administrative Science Quarterly* 28: 274-291.
- Dickens, P. 1992. *Society and Nature: Towards a Green Social Theory*. London: Harvester Wheatsheaf.
- Dietz, F.J. and J. Van der Stratten. 1992. "Rethinking Environmental Economics: Missing Links between Economic Theory and Environmental Policy." *Journal of Economic Issues* 26 (March): 1-25.
- Dietz, T. 1992. "The Challenge of Global Environmental Change for Human Ecology." Pp. 30-45 in *Human Responsibility and Global Change*, eds. L.O. Hansson and B. Jøgen. Göteborg, Sweden: University of Göteborg.
- Dietz, T. and E.A. Rosa. 1994. "Rethinking the Environmental Impacts of Population, Affluence and Technology." *Human Ecology Review* 1 (Summer/Autumn): 277-300.
- Dietz, T., T.R. Burns, and F.H. Buttel. 1990. "Evolutionary Theory in Sociology: An Examination of Current Thinking." *Sociological Forum* 5 (2): 155-171.
- Dilworth, C. 1994. "Two Perspectives on Sustainable Development." *Population and Environment* 15 (July): 441-467.
- Dobson, A. 1990. *Green Political Thought: An Introduction*. London: Unwin Hyman.
- Dobson, A. and P. Lucardie (eds.). 1993. *The Politics of Nature: Explorations of Green Political Theory*. London: Routledge.
- Dorn, H. 1991. *The Geography of Science*. Baltimore: The Johns Hopkins University Press.
- Douglass, G.K. 1984. "The Meanings of Agricultural Sustainability." Pp. 3-30 in *Agricultural Sustainability in a Changing World Order*, ed. G.K. Douglass. Boulder, CO: Westview Press.
- Dove, M.R. 1993. "The Coevolution of Population and Environment: The Ecology and Ideology of Feedback Relations in Pakistan." *Population and Development Review* 15 (2): 89-111.
- Dow, J. 1976. "Systems Models of Cultural Ecology." *Social Science Information* 15: 953-976.
- Drake, W.D. 1993. "Towards Building a Theory of Population-Environment Dynamics: A Family of Transitions." Pp. 305-355 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Dryzek, J.S. 1987. *Rational Ecology: Environment and Political Economy*. Oxford: Basil Blackwell.
- Duncan, O.D. and L.F. Schnore. 1959. "Cultural, Behavioral, and Ecological Perspectives in the Study of Social Organization." *American Journal of Sociology* 65: 132-146.

- Dunk, T. 1994. "Talking About Trees: Environment and Society in Forest Workers' Culture." *Canadian Review of Sociology and Anthropology* 31 (February): 14-34.
- Dunlap, R. 1980. "Paradigmatic Change in Social Science: From Human Exemptionalism to an Ecological Paradigm." *American Behavioral Scientist* 24 (1): 5-14.
- Dunlap, R. and W.R. Catton, Jr. 1979a. "Environmental Sociology: A Framework for Analysis." Pp. 57-85 in *Progress in Resource Management and Environmental Planning*, Vol. 1, eds. T. O'Riordan and R.C. d'Arge. Chichester, England: John Wiley & Sons.
- Dunlap, R. and W.R. Catton, Jr. 1979b. "Environmental Sociology." *Annual Review of Sociology* 5: 243-273.
- Dunlap, R. and W.R. Catton, Jr. 1983. "What Environmental Sociologists Have in Common (Whether Concerned with 'Built' or 'Natural' Environments)." *Sociological Inquiry* 53: 113-135.
- Dunlap, R.E., L.A. Lutzenhiser, and E.A. Rosa. 1994. "Understanding Environmental Problems: A Sociological Perspective." Pp. 27-49 in *Economy, Environment and Technology*, ed. B. Burgenmeier. Armonk, NY: M.E. Sharpe.
- Durham, W.H. 1976. "The Adaptive Significance of Cultural Behavior." *Human Ecology* 4 (2): 89-121.
- Durham, W.H. 1979. *Scarcity and Survival: Ecological Origins of the Soccer War*. Stanford, CA: Stanford University Press.
- Durham, W.H. 1990. "Advances in Evolutionary Cultural Theory." *Annual Review of Anthropology* 19: 187-210.
- Durning, A.T. 1991. "Asking How Much is Enough." Pp. 153-169 in *State of the World 1991* by L.R. Brown et al. New York: W.W. Norton.
- Durning, A.T. 1992. *How Much is Enough? The Consumer Society and the Future of the Earth*. New York: W.W. Norton.
- Eckersley, R. 1992. *Environmentalism and Political Theory: Toward an Ecocentric Approach*. New York: State University of New York Press.
- Ehrlich, P. R. 1989. "The Limits to Substitution: Meta-Resource Depletion and a New Economic-Ecologic Paradigm." *Ecological Economics* 1 (1): 9-16.
- Ehrlich, P.R., G.C. Daily, A.H. Ehrlich, P. Matson, and P. Vitousek. 1989. "Global Change and Human Carrying Capacity: Implications for Life on Earth." Pp. 19-27 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Ekins, P. (ed.) 1986. *The Living Economy: A New Economics in the Making*. New York: Routledge.
- Eldridge, N. and M. Grene. 1992. *Interactions: The Biological Context of Social Systems*. New York: Columbia University Press.

- Ellen, R.F. 1982. *Environment, Subsistence, and System: The Ecology of Small-Scale Social Formations*. Cambridge: Cambridge University Press.
- Ember, C.R. and M. Ember. 1992. "Resource Unpredictability, Mistrust, and War." *Journal of Conflict Resolution* 36 (June): 242-262.
- Enama, M.T. 1994. "Culture: The Missing Nexus in Ecological Economics Perspective." *Ecological Economics* 10 (2): 93-95.
- Ervin, D. 1987. "The Ecological Theory of Migration: Reconceptualizing Indigenous Labor Force." *Social Science Quarterly* 68 (4): 866-875.
- Feeny, D., F. Berkes, B.J. McCay, and J.M. Acheson. 1990. "The Tragedy of the Commons: Twenty-Two Years Later." *Human Ecology* 18 (1): 1-19.
- Ferkiss, V. 1993. *Nature, Technology, and Society*. New York: New York University Press.
- Field, D.R. and W.R. Burch, Jr. 1988. *Rural Sociology and the Environment*. Madison, WI: Social Ecology Press.
- Firey, W. and G. Sjoberg. 1982. "Issues in Sociocultural Ecology." Pp. 150-164 in *Urban Patterns: Studies in Human Ecology*, revised edition, ed. G.A. Theodorson. University Park: Pennsylvania State University Press.
- Fisher, A.C. and F.M. Peterson. 1976. "The Environment in Economics." *Journal of Economic Literature* 14 (1): 1-33.
- Fogel, R.W. 1994. "Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy." *American Economic Review* 84 (June): 369-395.
- Foster, J.B. 1994. *The Vulnerable Planet: A Short Economic History of the Environment*. New York: Monthly Review Press.
- Foster, J.B. 1995. "Marx and the Environment." *Monthly Review* 47 (July/August): 108-123.
- Fowler, C. 1994. *Unnatural Selection: Technology, Politics and Plant Evolution*. New York: Gordon and Breach.
- Frank, P.W. 1959. "Ecology and Demography." Pp. 652-677 in *The Study of Population*, eds. P.M. Hauser and O.D. Duncan. Chicago: University of Chicago Press.
- Freeman, J., G.R. Carroll, and M.T. Hannan. 1983. "The Liability of Newness: Age Dependence in Organizational Death Rates." *American Journal of Sociology* 48 (October): 692-710.
- Freeman, J. and M.T. Hannan. 1975. "Growth and Decline Processes in Organizations." *American Sociological Review* 40 (April): 215-228.
- Freeman, J. and M.T. Hannan. 1983. "Niche Width and the Dynamics of Organizational Populations." *American Journal of Sociology* 88 (May): 1116-1145.
- Frenkel, S. 1994. "Old Theories in New Places? Environmental Determinism and Bioregionalism." *The Professional Geographer* 46 (August): 289-295.

- Freudenburg, W.R. and R. Gramling. 1989. "The Emergence of Environmental Sociology." *Sociological Inquiry* 59 (November): 439-452.
- Freudenburg, W.R. and R. Gramling. 1992. "Community Impacts of Technological Change: Toward a Longitudinal Perspective." *Social Forces* 70 (June): 937-955.
- Frisbie, W.P. and J.D. Kasarda. 1988. "Spatial Processes." Pp. 629-666 in *Handbook of Sociology*, ed. N.J. Smelser. Newbury Park, CA: Sage Publications.
- Frisbie, W.P. and D.L. Poston, Jr. 1975. "Components of Sustenance Organization and Nonmetropolitan Population Change: A Human Ecological Investigation." *American Sociological Review* 40: 773-784.
- Frisbie, W.P. and D.L. Poston, Jr. 1978. "Sustenance Differentiation and Population Redistribution." *Social Forces* 57: 42-56.
- Frombrun, Jr., 1988. "Crafting an Institutionally Informed Ecology of Organizations." Pp. 223-239 in *Ecological Models of Organizations*, ed. G.R. Carroll. Cambridge, MA: Ballinger.
- Funtowicz, S.O. and J.R. Ravetz. 1994. "The Worth of a Songbird: Ecological Economics as a Post-Normal Science." *Ecological Economics* 10 (3): 197-207.
- Gadgil, M. and R. Guha. 1992. *This Fissured Land: An Ecological History of India*. Delhi: Oxford University Press.
- Gallopín, G.C. 1981. "The Abstract Concept of Environment." *International Journal of General Systems* 7: 139-149.
- Gallopín, G.C. 1991. "Human Dimensions of Global Change: Linking the Global and the Local Processes." *International Social Science Journal* 130 (November): 707-718.
- Gallopín, G.C., P. Guiman, P. Gutan, and H. Maletta. 1989. "Global Impoverishment, Sustainable Development and the Environment: A Conceptual Approach." *International Social Science Journal* 121 (August): 375-397.
- Gibbs, J.P. and W.T. Martin. 1959. "Toward a Theoretical System of Human Ecology." *Pacific Sociological Review* 2 (Spring): 29-36.
- Gibbs, J.P. and W.T. Martin. 1962. "Urbanization, Technology, and the Division of Labor: International Patterns." *American Sociological Review* 27: 667-777.
- Giddens, A. 1994. "Industrialization, Ecology, and the Development of Life Politics." Pp. 1-10 in *Ecology, Society & The Quality of Life*, eds. W.V. D'Antonio, M. Sasaki, and Y. Yonebayashi. New Brunswick, NJ: Transaction Books.
- Goldin, I. and L.A. Winters (eds.) 1994. *The Economics of Sustainable Development*. Cambridge: Cambridge University Press.
- Goldstone, J.A. 1991. *Revolution and Rebellion in the Early Modern World*. Berkeley: University of California Press.

- Golley, F.B. 1988. "Human Population from an Ecological Perspective." Pp. 199-210 in *Population and Resources in Western Intellectual Traditions*, eds. M.S. Teitelbaum and J.M. Winter. Supplement to Population and Development Review, Vol. 14. New York: The Population Council.
- Golley, F.B. 1994. *A History of the Ecosystem Concept in Ecology*. New Haven, CT: Yale University Press.
- Goodin, R.E. 1992. *Green Political Theory*. Oxford: Polity Press.
- Goodland, R. and G. Ledec. 1987. "Neo-classical Economics and Principles of Sustainable Development." *Ecological Modelling* 38: 19-46.
- Gorey, M.L. 1993. "Spatial Structure and the Urban Experience: Ecology and the New Urban Sociology." Pp. 111-128 in *Research in Urban Sociology: Urban Sociology in Transition*, Vol. 3, ed. R. Hitchison. Greenwich, CT: JAI Press.
- Gowdy, J. 1994. *Coevolutionary Economics: The Economy, Society and the Environment*. Hingham, MA: Kluwer Academic Publishers.
- Graedel, T. 1994. "Industrial Ecology: Definition and Implementation." Pp. 23-41 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Gray, D.B. (ed.) 1985. *Ecological Beliefs and Behaviors: Assessment and Change*. Westport, CT: Greenwood Press.
- Greider, T. and L. Garkovich. 1994. "Landscapes: The Social Construction of Nature and the Environment." *Rural Sociology* 59 (1): 1-24.
- Grief, A. 1994. "Cultural beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies." *Journal of Political Economy* 102 (5): 912-950.
- Grove-White, R. 1993. "Environmentalism: A New Moral Discourse for Technological Society?" Pp. 18-30 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Grundmann, R. 1991. "The Ecological Challenge to Marxism." *New Left Review* 187: 103-120.
- Guha, R. (ed.) 1994. *Social Ecology*. Delhi: Oxford University Press.
- Gunn, J.D. 1994. "Introduction: A Perspective from the Humanities-Science Boundary." *Human Ecology* 22 (March): 1-22.
- Gurtov, M. 1994. *Global Politics in the Human Interest*. Boulder, CO: Lynne Rienner.
- Guth, J.L., J.C. Green, L.A. Kellstedt, and C.E. Smidt. 1995. "Faith and the Environment: Religious Beliefs and Attitudes on Environmental Policy." *American Journal of Political Science* 39 (May): 364-382.
- Hall, C.A.S., R.G. Pontius, L. Coleman, and J.-Y. Ko. 1994. "The Environmental Consequences of Having a Baby in the United States." *Population and Environment* 15 (July): 505-524.
- Hågvar, S. 1994. "Preserving the Natural Heritage: The Process of Developing Attitudes." *Ambio* 23 (8): 515-518.

- Hannan, M.T. 1986. "Uncertainty, Diversity, and Organizational Change." Pp. 73-94 in *Social and Behavioral Sciences: Discoveries Over Fifty Years*, eds. N.J. Smelser and D.R. Gerstein. Washington, DC: National Academy Press.
- Hannan, M.T. 1988. "Organizational Population Dynamics and Social Change." *European Sociological Review* 4: 1-15.
- Hannan, M.T. and G.R. Carroll. 1992. *Dynamics of Organizational Populations: Density, Legitimation, and Competition*. New York: Oxford University Press.
- Hannan, M.T. and J. Freeman. 1977. "The Population Ecology of Organizations." *American Journal of Sociology* 82 (March): 929-964.
- Hannan, M.T. and J. Freeman. 1978. "Internal Politics of Growth and Decline." Pp. 177-199 in *Environments and Organizations*, eds. M. Meyer and associates. San Francisco: Jossey-Bass.
- Hannan, M.T. and J. Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49 (February): 149-164.
- Hannan, M.T. and J. Freeman. 1986. "Where Do Organizational Forms Come From?" *Sociological Forum* 1 (Winter): 50-72.
- Hannan, M.T. and J. Freeman. 1987. "The Ecology of Organizational Founding: American Labor Unions, 1836-1985." *American Journal of Sociology* 92: 910-943.
- Hannan, M.T. and J. Freeman. 1988a. "Density Dependence in the Growth of Organizational Populations." Pp. 7-32 in *Ecological Models of Organizations*, ed. G.R. Carroll. Cambridge, MA: Ballinger.
- Hannan, M.T. and J. Freeman. 1988b. "The Ecology of Organizational Mortality: American Labor Unions, 1836-1935." *American Journal of Sociology* 94 (July): 25-52.
- Hannan, M.T. and J. Freeman. 1989a. *Organizational Ecology*. Cambridge, MA: Harvard University Press.
- Hannan, M.T. and J. Freeman. 1989b. "Setting the Record Straight on Organizational Ecology: Rebuttal to Young." *American Journal of Sociology* 95 (July): 425-438.
- Hannan, M.T., G.R. Carroll, E.A. Dundon, and J.C. Torres. 1995. "Organizational Evolution in a Multinational Context." *American Sociological Review* 60 (August): 509-528. [Also see J.A.C. Baum and W.W. Powell, "Comment: Cultivating an Institutional Ecology," *Ibid*, pp. 529-538 and M.T. Hannan and G.R. Carroll, "Reply: Cheap Talk about Legitimation," *Ibid*, pp. 539-544.]
- Hardin, G. 1986. "Cultural Carrying Capacity: A Biological Approach to Human Problems." *BioScience* 36: 599-606.
- Hardin, G. 1991. "Paramount Positions in Ecological Economics." Pp. 47-57 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Harris, M. 1979. *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
- Harvey, D. 1990. "Between Space and Time: Reflections on the Geographic Imagination." *Annals of the Association of American Geographers* 80 (August): 418-434.
- Hauser, P.M. 1969. "The Chaotic Society: Product of the Social Morphological Revolution." *American Sociological Review* 34 (February): 1-19.
- Hausler, S. 1992. "Reformulating Social, Cultural and Ecological Sustainability." *Development* 1992 (2): 46-50.
- Hawley, A.H. 1950. *Human Ecology: A Theory of Community Structure*. New York: Ronald Press.
- Hawley, A.H. 1968. "Human Ecology." Pp. 328-337 in *International Encyclopedia of the Social Sciences*, ed. D.L. Sills, Vol. 4. New York: Crowell-Collier-MacMillan.
- Hawley, A.H. 1973. "Ecology and Population." *Science* 179 (23 March): 1196-1201.
- Hawley, A.H. 1978. "Cumulative Change in Theory and in History." *American Sociological Review* 43: 787-796.
- Hawley, A.H. 1981. "Human Ecology: Persistence and Change." Pp. 119-140 in *The State of Sociology: Problems and Prospects*, ed. J.F. Short, Jr. Beverly Hills, CA: Sage Publications.
- Hawley, A.H. 1984a. "Human Ecological and Marxist Theories." *American Journal of Sociology* 89 (January) 904-917.
- Hawley, A.H. 1984b. "Sociological Human Ecology: Past, Present, and Future." Pp. 1-15 in *Sociological Human Ecology: Contemporary Issues and Applications*, eds. M. Micklin and H.M. Choldin. Boulder, CO: Westview Press.
- Hawley, A.H. 1986. *Human Ecology: A Theoretical Essay*. Chicago: University of Chicago Press.
- Hawley, A.H. 1992. "The Logic of Macrosociology." *Annual Review of Sociology* 18: 1-14.
- Headrick, D.A. 1990. "Technological Change." Pp. 55-67 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Heilbroner, R.L. 1972. "Growth and Survival." *Foreign Affairs* 51 (October): 139-153.
- Hern, W.M. 1993. "Is Human Culture Carcinogenic for Uncontrolled Population Growth and Ecological Destruction?" *BioScience* 43 (11): 768-773.
- Higgins, R. 1980. *The Seventh Enemy: The Human Factor in the Global Crisis*. London: Pan Books.

- Hillier, W. and J. Hanson. 1984. *The Social Logic of Space*. Cambridge: Cambridge University Press.
- Hodgson, G. 1993. *Economics and Evolution*. Ann Arbor: University of Michigan Press.
- Hogan, D.J. 1992. "The Impact of Population Growth on the Physical Environment." *European Journal of Population* 8 (1): 109-123.
- Holling, C.S. 1987. "Simplifying the Complex: The Paradigms of Ecological Function and Structure." *European Journal of Operations Research* 30: 139-146.
- Holling, C.S. 1992. "Cross-Scale Morphology, Geometry, and Dynamics of Ecosystems." *Ecological Monographs* 62 (4): 447-502.
- Homer-Dixon, T.F. 1991. "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* 16 (Fall): 76-116.
- Homer-Dixon, T.F. 1994. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19 (Summer): 5-40.
- Hossain, M. 1994. "Interrelationships Between Population and Natural Resources: An Analytical Framework." Pp. 1-9 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Hudson, J.R. 1984. "Mills and Hawley on Power." *Sociological Perspectives* 27 (October): 371-393.
- Hudson, J.R. 1987. "Braudel's Ecological Perspective." *Sociological Forum* 2 (Winter): 146-165.
- Hudson, J.R. 1988. "Organized Groups, Land Use Decisions, and Ecological Theory." *Sociological Perspectives* 31 (January): 122-141.
- Huetting, R. 1980. *New Scarcity and Economic Growth --- More Welfare Through Less Production?* Amsterdam: North-Holland.
- Humphrey, C.R. and F.H. Buttel. 1982. *Environment, Energy, and Society*. Belmont, CA: Wadsworth.
- Huppenbauer, M. 1993. "Philosophical Remarks on the Project of Human Ecology." Pp. 99-104 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Ingold, T. 1986. *The Appropriation of Nature: Essays on Human Ecology and Social Relations*. Ames: Iowa State University Press.
- Ingold, T. 1993. "Globes and Spheres: The Topology of Environmentalism." Pp. 31-42 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Jacob, M. 1994. "Toward a Methodological Critique of Sustainable Development." *Journal of Developing Areas* 28 (January): 237-252.

- Jacobs, M. 1991. *The Green Economy: Environment, Sustainable Development and the Politics of the Future*. London: Pluto Press.
- Jaeger, C.C. 1994. *Environmental Crisis and Cultural Evolution: A Study in Human Ecology*. New York: Gordon and Breach.
- Jolly, C.L. 1994. "Four Theories of Population Change and the Environment." *Population and Environment* 16 (September): 61-90.
- Jones, A. 1987. "The Violence of Materialism in Advanced Industrial Society: An Eco-sociological Approach." *The Sociological Review* 35 (February): 19-47.
- Jones, A. 1990. "Social Symbiosis: A Gaian Critique of Contemporary Social Theory." *The Ecologist* 20: 108-113.
- Kakonen, J. (ed.) 1992. *Perspectives on Environmental Conflict and International Politics*. London: Pinter.
- Kasarda, J.D. 1972. "The Theory of Ecological Expansion: An Empirical Test." *Social Forces* 51 (December): 165-175.
- Kasarda, J.D. 1974. "The Structural Implications of Social System Size: A Three-Level Analysis." *American Sociological Review* 39 (February): 19-28. [Also see J.J. Noell, "System-Level and System Property," *Ibid* (December), pp. 885-886 and J.D. Kasarda, "On Social System Properties: An Alternative View," *Ibid*, pp. 886-888.]
- Keeney, D.R. 1989. "Toward a Sustainable Agriculture: Need for Clarification of Concepts and Terminology." *American Journal of Alternative Agriculture* 4 (3/4): 101-105.
- Kelley, A.C. and W.P. McGreevey. 1994. "Population and Development in Historical Perspective." Pp. 107-126 in *Population and Development: Old Debates, New Conclusion*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Keyfitz, N. 1991. "Toward a Theory of Population-Development Interaction." Pp. 295-314 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press. [Also see R.D. Lee, "Comment: The Second Tragedy of the Commons," *Ibid*, pp. 315-322; V. Abernathy, "Comment: The 'One World' Thesis as an Obstacle to Environmental Preservation," *Ibid*, pp. 323-328; and D. Pimentel and M. Pimentel, "Comment: Adverse Environmental Consequences of the Green Revolution," *Ibid*, pp. 329-332.]
- Keyfitz, N. 1992. "Seven Ways of Causing the Less Developed Countries' Population to Disappear --- in Theory." *European Journal of Population* 8 (2): 149-167.
- Klausner, S.Z. 1971. *On Man in His Environment*. San Francisco: Jossey-Bass.
- Kleinman, D. 1981. *Human Adaptation and Population Growth: A Non-Malthusian Perspective*. Montclair, NJ: Allenheld, Osmun and Co.

- Kraft, M.E. 1992. "Ecology and Political Theory: Broadening the Scope of Environmental Politics." *Policy Studies Journal* 20 (4): 712-718.
- Krauss, I. 1991. "The Population Ecology Theory of Organizations and Praxis." *Sociological Praxis Review* 2 (January): 15-19.
- Lang, A. 1993. "The 'Concrete Mind' Heuristic: Human Identify and Social Compound from Things and Buildings." Pp. 249-266 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Langton, N. 1987. "Niche Theory and Social Movements: a Population Ecology Approach." *Sociological Quarterly* 28 (Spring): 51-70.
- Latour, B. 1994. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Lawrence, R.J. 1993. "Can Human Ecology Provide an Integrated Framework? The Contribution of Structuration Theory to Contemporary Debate." Pp. 213-228 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Lazlo, E. 1991. *The Age of Bifurcation: Understanding the Changing World*. New York: Gordon and Breach.
- Leavitt, G.C. 1986. "Ideology and the Materialist Model of General Evolution: A Cross-Cultural Test of Subsystem Relationships." *Social Forces* 65 (December): 525-553.
- Leiss, W. 1972. *The Domination of Nature*. New York: George Brazillier.
- Lenski, G. 1970. *Human Societies: A Macrolevel Introduction to Sociology*. New York: McGraw-Hill.
- Lenski, G. 1975. "Social Structure in Evolutionary Perspective." Pp. 135-153 in *Approaches to the Study of Social Structure*, ed. P.M. Blau. New York: The Free Press.
- Lenski, G. 1979. "Directions and Continuities in Societal Growth." Pp. 5-18 in *Societal Growth: Processes and Implications*, ed. A.H. Hawley. New York: The Free Press.
- Lenski, G. and P.D. Nolan. 1984. "Trajectories of Development: A Test of Ecological- Evolutionary Theory." *Social Forces* 63 (March): 1-23.
- Lenski, G. and P.D. Nolan. 1986. "Trajectories of Development: A Further Test." *Social Forces* 64 (March): 794-795.
- Lenski, G., J. Lenski, and P. Nolan. 1991. *Human Societies: An Introduction to Macrosociology*. Sixth Edition. New York: McGraw-Hill.
- Lopreato, J. 1984. *Human Nature and Biocultural Evolution*. Boston: Unwin Hyman.
- Lopreato, J. 1990. "From Social Evolutionism to Biocultural Evolutionism." *Sociological Forum* 5 (2): 187-212.

- Love, T. 1977. "Ecological Niche Theory in Sociocultural Anthropology: A Conceptual Framework and an Application." *American Ethnologist* 4 (1): 27-41.
- Low, B.S. and A. Clarke. 1993. "Resource Control, Fertility and Migration." Pp. 195-224 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Lowe, P.D. and W. Rudig. 1986. "Political Ecology and the Social Sciences --- The State of the Art." *British Journal of Political Science* 16: 513-550.
- Lowenthal, D. 1990. "Awareness of Human Impacts: Changing Attitudes and Emphases." Pp. 121-135 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Lowery, D. and V. Gray. 1995. "The Population Ecology of Gucci Gulch, or the Natural Regulation of Interest Group Numbers in the American States." *American Journal of Political Science* 39 (February):1-29.
- Luhmann, N. 1989. *Ecological Communication*. Cambridge: Polity Press.
- Luten, D.B. 1980. "Ecological Optimism in the Social Sciences: The Question of Limits to Growth." *American Behavioral Scientist* 24 (1): 125-151.
- Lutz, W. 1994. "Population and Environment --- What Do We Need More Urgently: Better Data, Better Models, or Better Questions?" Pp. 47-62 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Maddox, J. 1972. *The Doomsday Syndrome*. New York: McGraw-Hill.
- Marshall, H. and J. Stahura. 1986. "The Theory of Ecological Expansion: The Relation Between Dominance and Social Differentiation." *Social Forces* 65 (December): 352-369.
- Martell, L. 1994. *Ecology and Society: An Introduction*. Amherst: University of Massachusetts Press.
- Martinez-Alier, J. 1987. *Ecological Economics: Energy, Environment and Society*. Oxford: Basil Blackwell.
- Matras, J. 1979. "Mechanisms and Processes of Societal Growth." Pp. 30-60 in *Societal Growth: Processes and Implications*, ed. A.H. Hawley. New York: The Free Press.
- McCabe, J.T. 1990. "Turkana Pastoralism: A Case Against the Tragedy of the Commons." *Human Ecology* 18: 81-104.
- McCay, B.J. and J.M. Acheson. 1987. "Human Ecology of the Commons." Pp. 1-34 in *The Question of the Commons: The Culture and Ecology of Communal Resources*, eds. B.J. McCay and J.M. Acheson. Tucson: University of Arizona Press.

- McNicoll, G. 1990. "Social Organization and Ecological Stability Under Demographic Stress." *Research Division Working Papers*, No. 11. New York: The Population Council.
- Mehta, M.D. and É. Ouellet (eds.). 1995. *Environmental Sociology: Theory and Practice*. Ontario: Captus Press.
- Mendelsohn, R. 1994. "Property Rights and Deforestation." *Oxford Economic Papers* 46 (October): 750-756.
- Merchant, C. 1990. "The Realm of Social Relations: Production, Reproduction, and Gender in Environmental Transformations." Pp. 673-683 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Merchant, C. (ed.) 1994a. *Ecology: Key Concepts in Critical Theory*. Atlantic Highlands, NJ: Humanities Press International.
- Merchant, C. 1994b. "Introduction." Pp. 1-25 in *Ecology: Key Concepts in Critical Theory*, ed. C. Merchant. Atlantic Highlands, NJ: Humanities Press International.
- Micklin, M. 1973a. "A Framework for the Study of Human Ecology." Pp. 2-19 in *Population, Environment, and Social Organization: Current Issues in Human Ecology*, ed. M. Micklin. Hinsdale, IL: Dryden.
- Micklin, M. (ed.) 1973b. *Population, Environment, and Social Organization: Current Issues in Human Ecology*. Hinsdale, IL: Dryden.
- Micklin, M. 1984. "The Ecological Perspective in the Social Sciences: A Comparative Overview." P. 51-90 in *Sociological Human Ecology: Contemporary Issues and Applications*, eds. M. Micklin and H.M. Choldin. Boulder, CO: Westview Press.
- Micklin, M. and H.M. Choldin (eds.). 1984. *Sociological Human Ecology: Contemporary Issues and Applications*. Boulder, CO: Westview Press.
- Micklin, M. and D.L. Poston, Jr. (eds.) 1996. *Continuities in Sociological Human Ecology*. New York: Plenum.
- Miller, A. 1978. *A Planet to Choose: Value Studies in Political Ecology*. New York: Pilgrim Press.
- Milton, K. (ed.) 1993a. *Environmentalism: The View from Anthropology*. New York: Routledge.
- Milton, K. 1993b. "Introduction: Environmentalism and Anthropology." Pp. 1-17 in *Environmentalism: The View from Anthropology*. New York: Routledge.
- Miner, A.S. 1991. "Organizational Evolution and the Social Ecology of Jobs." *American Sociological Review* 56 (December): 772-785.
- Mohr, E. 1994. "Environmental Norms, Society, and Economics." *Ecological Economics* 9 (April): 229-239.

- Mol, A.P.J. and G. Spaargaren. 1993. "Environment, Modernity and the Risk Society: The Apocalyptic Horizon of Environmental Reform." *International Sociology* 8 (4): 431-459.
- Molotch, H.L. 1967. "Toward a More Human Ecology." *Land Economics* 43 (August): 336-341.
- Moran, E.F. 1991. "Human Adaptive Strategies in Amazonian Blackwater Ecosystems." *American Anthropologist* 93 (2): 361-382.
- Mosler, H-J. 1993. "The Self-Organization of Ecologically Sound Behaviour." Pp. 176-195 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Murdoch, J. and J. Clark. 1994. "Sustainable Knowledge." *Geoforum* 25 (2): 115-132.
- Murdock, S.H., M.N. Hoque, and K. Backman. 1993. "Determinants of 1980 and 1990 Net Migration in Texas Counties: The Role of Sustenance Specialization and Dominance in International Ecosystems." *Rural Sociology* 58 (2): 190-209.
- Murphy, R. 1994a. *Rationality and Nature: A Sociological Inquiry into a Changing Relationship*. Boulder, CO: Westview Press.
- Murphy, R. 1994b. "The Sociological Construction of Science Without Nature." *Sociology* 28 (November): 957-974.
- Naess, A. with D. Rothenberg. 1989. *Ecology, Community and Lifestyle*. Cambridge: Cambridge University Press.
- Namboodiri, K. 1988. "Ecological Demography: Its Place in Sociology." *American Sociological Review* 53 (August): 619-633. [Also see M.A. Faia, "Cultural Materialism in the Functionalist Mode," *Ibid* 54 (August 1989), pp. 658-660.]
- Namboodiri, K. 1994. "The Human Ecological Approach to the Study of Population Dynamics." *Population Index* 60 (Winter): 517-539.
- Namboodiri, K. and R.G. Corwin. 1993. *The Logic and Method of Macrosociology: An Input-Output Approach to Organizational Networks*. Westport, CT: Praeger.
- Nauser, M. 1993. "Environmental Concern and the Theory of Structuration: Steps Towards a Better Understanding of Environmentally Harmful Agency." Pp. 229-248 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Nelson, J.G. and R. Serafin. 1992. "Assessing Biodiversity: A Human Ecological Approach." *Ambio* 21 (3): 212-218.
- Nerlove, M. 1991. "Population and the Environment: A Parable of Firewood and Other Tales." *American Journal of Agricultural Economics* 73 (December): 1334-1347.

- Ness, G.D. 1993. "The Long View: Population-Environment Dynamics in Historical Perspective." Pp. 33-55 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Ness, G., W.D. Drake, and S.R. Brechin (eds.). 1993a. *Population-Environmental Dynamics: Ideas and Observations*. Ann Arbor: University of Michigan Press.
- Ness, G., W.D. Drake, and S.R. Brechin. 1993b. "Summary, Conclusion and Next Steps." Pp. 377-406 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Nielsen, F. and M.T. Hannan. 1977. "The Expansion of National Education Systems: Tests of a Population Ecology Model." *American Sociological Review* 42 (June): 479-490.
- Nolan, P.D. 1984. "External Selection and Adaptive Change: Alternative Models of Sociocultural Evolution." Pp. 117-139 in *Sociological Theory 1984*, ed. R. Collins. San Francisco: Jossey-Bass.
- Nordhaus, W.D. 1992. "Lethal Model 2: The Limits to Growth Revisited." *Brookings Papers on Economic Activity* (2): 1-43. [Also see "Comments and Discussion," *Ibid*, pp. 44-56.]
- Norgaard, R.B. 1994. *Development Betrayed: The End of Progress and a Coevolutionary Revisioning of the Future*. New York: Routledge.
- Norgaard, R.B. and R.B. Howarth. 1991. "Sustainability and Discounting the Future." Pp. 88-101 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- North, R.D. 1995. *Life on a Modern Planet: A Manifesto for Progress*. Manchester: Manchester University Press.
- O'Connor, J. 1988. "Capitalism, Nature, Socialism: a Theoretical Introduction." *Capitalism, Nature, Socialism* 1: 11-38.
- O'Connor, J. 1989. "Political Economy of Ecology of Socialism and Capitalism." *Capitalism, Nature, Socialism* 3: 93-106.
- Olsen, M.E., D.G. Lodwick, and R.E. Dunlap. 1991. *Viewing the World Ecologically*. Boulder, CO: Westview Press.
- Ophuls, W. and A.S. Boyd, Jr. 1992. *Ecology and the Politics of Scarcity Revisited: The Unraveling of the American Dream*. San Francisco: W.H. Freeman.
- Orians, G.H. 1990. "Ecological Concepts of Sustainability." *Environment* 32 (9): 10-15, 34-39.
- Orr, D.W. 1979. "Modernization and the Ecological Perspective." Pp. 75-89 in *The Global Predicament*, eds. D.W. Orr and M.S. Soroos. Chapel Hill: University of North Carolina Press.

- Page, T. 1991. "Sustainability and the Problem of Valuation." Pp. 58-74 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Parsons, H.L. (ed. & comp.) 1977. *Marx and Engels on Ecology*. Westport, CT: Greenwood Press.
- Pearce, D. 1987. "Foundations of an Ecological Economics." *Ecological Modelling* 38 (1): 9-18.
- Pearce, D. 1988. "Optimal Prices for Sustainable Development." Pp. 57-66 in *Economics, Growth, and Sustainable Environments: Essays in Memory of Richard Lecomber*, eds. D. Collard, D. Pearce, and D. Ulph. New York: St. Martin's Press.
- Pearce, D.W. and J.J. Warford. 1993. *World Without End: Economics, Environment, and Sustainable Development*. New York: Oxford University Press.
- Pepper, D. 1993. *Eco-Socialism: From Deep Ecology to Social Justice*. New York: Routledge.
- Perrings, C. 1987. *Economy and Environment*. Cambridge: Cambridge University Press.
- Perrings, C. 1995. "Ecology, Economics and Ecological Economics." *Ambio* 24 (1): 60-64.
- Peterson, T. and K.W. Koput. 1991. "Density Dependence in Organizational Mortality: Legitimacy or Unobserved Homogeneity," *American Sociological Review* 56 (June): 399-409. [Also see M.T. Hannan, D.N. Barron, and G.R. Carroll, "On the Interpretation of Density Dependence Rates of Organizational Mortality: A Reply to Peterson and Koput," *Ibid*, pp. 410-415 and T. Peterson and K.W. Koput, "Unobserved Heterogeneity or Legitimacy in Density Dependence: A Rejoinder to Hannan, Barron, and Carroll," *Ibid*, p. 416.]
- Pezzey, J. 1992. "Sustainability: An Interdisciplinary Guide." *Environmental Values* 1 ((March): 321-362.
- Pillet, G. 1993. "External Effects as a Bridge Between Environmental and Ecological Economics." Pp. 146-175 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Pimentel, D., R. Harman, M. Pacenza, J. Pecarsky, and M. Pimentel. 1994. "Natural Resources and an Optimum Human Population." *Population and Environment* 15 (May): 347-369.
- Poston, D.L., Jr., W.P. Frisbie, and M. Micklin. 1984. "Sociological Human Ecology: Theoretical and Conceptual Perspectives." Pp. 91-123 in *Sociological Human Ecology: Contemporary Issues and Applications*, eds. M. Micklin and H.M. Choldin. Boulder, CO: Westview Press.

- Price, B. 1982. "Cultural Materialism: A Theoretical Review." *American Anthropologist* 47 (August): 709-741.
- Redclift, M. 1988. "Sustainable Development and the Market: A Framework for Analysis." *Futures* (December): 635-650.
- Redclift, M. and T. Benton (eds.). 1994. *Social Theory and the Global Environment*. New York: Routledge.
- Rees, C. 1993. "The Ecologist's Approach to Sustainable Development." *Finance and Development* 30 (4): 14-15.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Routledge.
- Richerson, P.J. 1977. "Ecology and Human Ecology: A Comparison of Theories in the Biological and Social Sciences." *American Ethnologist* 4 (1): 1-26.
- Rosa, E.A. 1979. "Sociobiology, Biosociology, or Vulgar Biologizing." *Sociological Symposium* 27 (1): 28-49.
- Rosa, E.A., G.E. Machlis, and K.M. Keating. 1988. "Energy and Society." *Annual Review of Sociology* 14: 149-172.
- Rothenberg, D. (ed.). 1995. *Wild Ideas*. Minneapolis: University of Minnesota Press.
- Ruth, M. 1993. *Integrating Economics, Ecology and Thermodynamics*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Ruttan, V.W. 1994. "Constraints on the Design of Sustainable Systems of Agricultural Production." *Ecological Economics* 10 (3): 209-219.
- Ryle, M. 1988. *Ecology and Socialism*. London: Radius.
- Sack, R.D. 1990. "The Realm of Meaning: The Inadequacy of Human-Nature Theory and the View of Mass Consumption." Pp. 659-671 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Sanderson, S.K. 1990. *Societal Evolutionism*. Cambridge: Basil Blackwell.
- Santos, M.A. 1990. *Managing Planet Earth: Perspectives on Population, Ecology, and the Law*. New York: W.H. Freeman.
- Schallau, C.H. 1989. "Sustained Yield Versus Community Stability: An Unfortunate Wedding?" *Journal of Forestry* 87 (9): 16-23.
- Schlager, E. and E. Ostrom. 1992. "Property-Rights Regimes and Natural Resources: A Conceptual Analysis." *Land Economics* 68 (2): 249-262.
- Schnaiberg, A. 1975. "Social Syntheses of the Societal-Environmental Dialectic: The Role of Distributional Impacts." *Social Science Quarterly* 56 (June): 5-20.
- Schnaiberg, A. 1980. *The Environment: From Surplus to Scarcity*. New York: Oxford University Press.

- Schnaiberg, A. and K.A. Gould. 1994. *Environment and Society: The Enduring Conflict*. New York: St. Martin's Press.
- Sessions, G. and B. Devall. 1989. "Deep Ecology." Pp. 309-315 in *American Environmentalism: Readings in Conservation History*, ed. R.F. Nash. Third Edition. New York: McGraw-Hill.
- Shiva, V. 1988. *Staying Alive: Women, Ecology, and Development*. London: Zed Books.
- Shogren, J.F. and C. Nowell. 1992. "Economics and Ecology: A Comparison of Experimental Methodologies and Philosophies." *Ecological Economics* 5 (2): 101-126.
- Simmons, I.G. 1993. *Interpreting Nature: Cultural Constructions of the Environment*. New York: Routledge.
- Simon, D. 1989. "Sustainable Development: Theoretical Construct or Attainable Goal?" *Environmental Conservation* 16 (Spring): 41-48.
- Simon, J.L. 1981. *The Ultimate Resource*. Princeton, NJ: Princeton University Press.
- Simon, J.L. 1986. *Theory of Population and Economic Growth*. New York: Basil Blackwell.
- Simon, J.L. 1989. "Lebensraum: Paradoxically, Population Growth May Eventually End Wars." *Journal of Conflict Resolution* 33 (March): 164-180.
- Simon, J.L. 1990. *Population Matters: People, Resources, Environment, and Immigration*. New Brunswick, NJ: Transaction Books.
- Simonis, U.E. 1989. "Ecological Modernization of Industrial Society: Three Strategic Elements." *International Social Science Journal* 121 (August): 347-361.
- Singh, J.V. 1993. "Density Dependency Theory --- Current Issues, Future Promise." *American Journal of Sociology* 94 (2): 464-473.
- Singh, J.V., R.J. House, and D.J. Tucker. 1986. "Organizational Change and Organizational Mortality." *Administrative Science Quarterly* 31: 587-611.
- Singh, J.V., D.J. Tucker, and R.J. House. 1986. "Organizational Legitimacy and the Liability of Newness." *Administrative Science Quarterly* 31: 171-193.
- Sivaramakrishnan, K. 1995. "Colonialism and Forestry in India: Imagining the Past in Present Politics." *Comparative Studies in Society and History* 37 (January): 3-40.
- Skolnikoff, E.B. 1993. "Science and Technology: The Sources of Change." Pp. 255-279 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Sly, D.F. 1972. "Migration and the Ecological Complex." *American Sociological Review* 37: 615-628.
- Sly, D.F. and J. Tayman. 1977. "Ecological Approach to Migration Reexamined." *American Sociological Review* 42: 783-795.

- Smil, V. 1991. *General Energetics: Energy in the Biosphere and Civilization*. New York: Wiley.
- Smil, V. 1994. *Global Ecology: Environmental Change and Social Flexibility*. London: Routledge.
- Smith, S. and E. Reeves (eds.). 1988. *Human Systems Ecology: Studies in the Integration of Political Economy, Adaptation, and Socionatural Regions*. Boulder, CO: Westview Press.
- Socolow, R. 1994. "Six Perspectives from Industrial Ecology." Pp. 3-16 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Soderbaum, P. 1992. "Neoclassical and Institutional Approaches to Development and the Environment." *Ecological Economics* 5 (2): 127-144.
- Söderström, O. 1993. "Spectacle Ecology, Human Ecology and Crisis of Urbanity." Pp. 331-344 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Spaargaren, G. and A.P.J. Mol. 1992. "Sociology, Environment, and Modernity: Towards a Theory of Ecological Modernization." *Society and Natural Resources* 5 (4): 323-344.
- Sponsel, L.E. 1986. "Amazon Ecology and Adaptation." *Annual Review of Anthropology* 15: 67-97.
- Standen, V. and R. Foley (eds.). 1989. *Comparative Socioecology*. Oxford: Blackwell.
- Steiner, D. 1993. "Human Ecology as Interdisciplinary Science, and Science as Part of Human Ecology." Pp. 47-76 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Steiner, D. and M. Nauser (eds.) 1993. *Human Ecology: Fragments of Anti-Fragmentary Views of the World*. New York: Routledge.
- Steiner, D., G. Dürrenberger, and H. Ernste. 1993. "Flexible Structures for a Reintegrated Human Agency." Pp. 310-330 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Stern, P.C. 1992. "Psychological Dimensions of Global Environmental Change." *Annual Review of Psychology* 43: 269-302.
- Stern, P.C., O.R. Young, and D. Druckman (eds.). 1992. *Global Environmental Change: Understanding the Human Dimensions*. Washington, DC: National Academy Press.
- Stinchcombe, A.L. 1983. *Economic Sociology*. New York: Academic Press.
- Stockdale, J. 1989. "Pro-Growth, Limits to Growth, and a Sustainable Development Synthesis." *Society and Natural Resources* 2 (3): 163-176.
- Stokes, K.M. 1994. *Man and the Biosphere: Toward a Coevolutionary Political Economy*. Armonk, NY: M.E. Sharpe.

- Strange, M. 1984. "The Economic Structure of Sustainable Agriculture." Pp. 115-125 in *Meeting the Expectations of the Land*, eds. W. Jackson, W. Berry, and B. Coleman. San Francisco: North Point Press.
- Swaney, J.A. 1990. "Common Property, Reciprocity, and Community." *Journal of Economic Issues* 24 (June): 451-462.
- Swanson, T.M. 1994. "The Economics of Extinction Revisited and Revised: A Generalized Framework for the Analysis of the Problems of Endangered Species and Biodiversity Losses." *Oxford Economic Papers* 46 (October): 800-821.
- Swift, A. 1993. *Global Political Ecology: The Crisis in Economy and Government*. Boulder, CO: Westview Press.
- Sylvan, R. 1985. "A Critique of Deep Ecology." *Radical Philosophy* 40: 2-12 and 41: 10-22.
- Tainter, J.A. 1988. *The Collapse of Complex Societies*. Cambridge: Oxford University Press.
- Taylor, P.J. 1994. "The State as Container: Territoriality in the Modern World System." *Progress in Human Geography* 18 (2): 151-162.
- Teitelbaum, M. and J. Winter. 1993. "The Missing Links: The Population-Environment Debate in Historical Perspective." Pp. 17-31 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Tietenberg, T.H. 1992. *Environmental and Natural Resource Economics*. New York: Harper Collins.
- Tisdell, C. 1988. "Sustainable Development: Differing Perspectives of Ecologists and Economists, and Relevance to LDCs." *World Development* 16 (3): 373-384.
- Tisdell, C. 1993. *Environmental Economics*. Brookfield, VT: Edward Elgar.
- Toman, M.A. 1994. "Economics and 'Sustainability': Balancing Trade-Offs and Imperatives." *Land Economics* 70 (November): 399-413.
- Tucker, D.J., J. Singh, A.G. Meinard, and R.J. House. 1988. "Ecological and Institutional Sources of Change in Organizational Populations." Pp. 127-152 in *Ecological Models of Organizations*, ed. G.R. Carroll. Cambridge, MA: Ballinger.
- Turner II, B.L. 1989. "The Human Causes of Global Environmental Change." Pp. 90-99 in *Global Environmental Change and Our Common Future: Results of a Forum*, eds. R.S. DeFries and T. Malone. Washington, DC: National Academy of Sciences.
- Turner II, B.L. and W.B. Meyer. 1991. "Land Use and Land Cover in Global Environmental Change: Considerations for Study." *International Social Science Journal* 130 (November): 669-679.
- Teune, H. 1988. *Growth*. Beverly Hills, CA: Sage Publications.

- Tokar, B. 1993. *The Green Alternative: Creating an Ecological Future*. Revised edition. San Pedro, CA: R. and E. Miles.
- van den Bergh, P.L. 1990. "Why Most Sociologists Don't (and Won't) Think Evolutionarily." *Sociological Forum* 5 (2): 173-185.
- Watts, M.J. and H.G. Bohle. 1993. "The Space of Vulnerability: The Causal Structure of Hunger and Famine." *Progress in Human Geography* 17 (1): 43-67.
- Weichhart, P. 1993. "How Does the Person Fit into the Human Ecological Triangle?" Pp. 77-98 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Weiss, E.B. 1989. "Legal Dimensions of Global Change: A Proposed Research Agenda." *International Social Science Journal* 121 (August): 399-412.
- Wenz, P. 1988. *Environmental Justice*. Albany: State University of New York Press.
- Werlen, B. 1993. "On Regional and Cultural Identity: Outline of a Regional Culture Analysis." Pp. 296-309 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Whatmore, S. 1993. "Sustainable Rural Geographies?" *Progress in Human Geography* 17 (4): 538-547.
- White, G.F. 1994. "Reflections on Changing Perceptions of the Earth." *Annual Review of Energy and the Environment* 19: 1-13.
- White, Jr., L. 1967. "The Historical Roots of our Ecologic Crisis." *Science* 155 (10 March): 1203-1207.
- Wilkinson, R.G. 1973. *Poverty and Progress: An Ecological Perspective on Economic Development*. New York: Praeger.
- Wisniewski, R.L. 1980. "Carrying Capacity: Understanding Our Biological Limitations." *Humboldt Journal of Social Relations* 7: 55-70.
- Worster, D. 1993. *The Wealth of Nature: Ecological History and the Ecological Imagination*. New York: Oxford University Press.
- Wright, W. 1992. *Wild Knowledge: Science, Language and Social Life in a Fragile Environment*. Minneapolis: University of Minnesota Press.
- Yearley, S. 1992. *The Green Case: A Sociology of Environmental Arguments, Issues and Politics*. London: Routledge.
- Young, J. 1990. *Post-Environmentalism*. London: Pinter.
- Young, R.C. 1988. "Is Population Ecology a Useful Paradigm for the Study of Organizations?" *American Journal of Sociology* 94 (July): 1-24. [Also see J. Freeman and M.T. Hannan, "Setting the Record Straight on Organizational Ecology," *Ibid*, pp. 425-439; J. Brittain and D.R. Wholey, "Assessing Organizational Ecology as Sociological Theory: Comment on Young," *Ibid*, pp. 439-444; and R.C. Young, "Reply to Freeman and Hannan and Brittain and Wholey," *Ibid*, pp. 445-446.]

- Zaba, B. and I. Scoones. 1994. "Is Carrying Capacity a Useful Concept to Apply to Human Populations?" Pp. 197-219 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Zimmerer, K.S. 1994. "Human Geography and the 'New Ecology': The Prospect and Promise of Integration." *Annals of the Association of American Geographers* 84 (March): 108-125.

C. Ecological Aspects of Third World Development

- Abeykoon, A.T.P.L. 1993. "Population, Environment and Sustainable Development." *Sri Lanka Journal of Social Sciences* 16 (½): 57-64.
- Adams, W.M. 1990. *Green Development: Environment and Sustainability in the Third World*. New York: Routledge.
- Adger, W.N. and F. Grohs. 1994. "Aggregate Estimate of Environmental Degradation for Zimbabwe: Does Sustainable National Income Ensure Sustainability?" *Ecological Economics* 11 (2): 93-104.
- Adnan, M.H.H. 1994. "Technological Changes for Increased Production, Changing Consumption Patterns, and Sustainable Development." Pp. 85-93 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Agarwal, B. 1994. "The Gender and Poverty Debate: Lessons from India." Pp. 87-124 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Ahlburg, D.A. 1988. "Is Population Growth a Deterrent to Development in the South Pacific?" *Journal of the Australian Population Association* 5 (May): 46-57.
- Ahlburg, D.A. 1994. "Population Growth and Poverty." Pp. 127-147 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Ajaegbu, H. 1994. "Population and Environment Interrelationships on the Jos Plateau, Nigeria." Pp. 349-359 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Alario, M. 1993. "Environmental Policy Enactment Under the Military: Some Generalities Between Brazil and Chile." *International Journal of Comparative Sociology* 34 (3/4): 222-230.
- Alsogaray, M.J. 1993. "International Trade and the Environment: A View from Argentina." Pp. 153-158 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Alvarado, L. 1992. "Environment and Development: A View from Chile." Pp. 19-24 in *Environment and Diplomacy in the Americas*; ed. H. Muñoz. Boulder, CO: Lynne Rienner.
- Anderson, C.H. 1976. *The Sociology of Survival: Social Problems of Growth*. Homewood, IL: Dorsey.
- Anderson, L.E. 1994. *The Political Ecology of the Modern Peasant: Calculation and Community*. Baltimore: The Johns Hopkins University Press.

- Annis, S. 1992. "Overview: Poverty, Natural Resources, and Public Policy in Central America." Pp. 3-27 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- Antle, J.M. and G. Heidebrink. 1995. "Environment and Development: Theory and International Evidence." *Economic Development and Cultural Change* 43 (April): 603-625.
- Arbhabhirama, A., D. Phantumvanit, J. Elkington, and P. Ingkasuwan. 1988. *Thailand: Natural Resources Profile*. Singapore: Oxford University Press.
- Arden-Clarke, C. 1993. "An Action Agenda for Trade Policy Reform to Support Sustainable Development: A United Nations Conference on Environment and Development Follow-Up." Pp. 71-81 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- d'Arge, R.C. and K.C. Kogiku. 1973. "Economic Growth and the Environment." *Review of Economic Studies* 40 (January): 61-78.
- Arizpe, L., R. Costanza, and W. Lutz. 1992. "Population and Natural Resource Use." Pp. 61-78 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J. Dooge, G. Goodman, and J. la Riviere. London: Cambridge University Press.
- Arizpe, L., M.P. Stone, and D.C. Major (eds.) 1994. *Population and the Environment: Rethinking the Debate*. Boulder, CO: Westview Press.
- Arrigo, L.G. 1994. "The Environmental Nightmare of the Economic Miracle: land Abuse and Land Struggles in Taiwan." *Bulletin of Concerned Asian Scholars* 26 (1/2): 21-44.
- Arrow, K., B. Bolin, R. Costanza, P. Dasgupta, C. Folke, C.S. Holling, B.-O. Jansson, S. Levin, K.-G. Mäler, C. Perrings, and D. Pimentel. 1995. "Economic Growth, Carrying Capacity, and the Environment." *Science* 268 (28 April): 520-521.
- Ascher, W. and R. Healy. 1990. *Natural Resource Policy making in Developing Countries: Environment, Economic Growth, and Income Distribution*. Durham, NC: Duke University Press.
- Asian NGO Coalition, IRED and the PCD Forum. 1993. "Economy, Ecology and Spirituality: Toward a Theory and Practice of Sustainability (Part I)." *Development* 1993 (4): 74-80.
- Audley, J. 1993. "Why Environmentalists Are Angry about the North American Free Trade Agreement." Pp. 191-202 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Aylward, B. and E. Barbier. 1992. "Valuable Environmental Functions in Developing Countries." *Biodiversity and Conservation* 1 (1): 34-50.

- Bailey, N.A. 1993. "Foreign Direct Investment and Environmental Protection in the Third World." Pp. 133-143 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Bailey, R. 1995a. "Prologue: Environmentalism for the Twenty-first Century." Pp. 1-6 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Bailey, R. 1995b. "Seven Doomsday Myths about the Environment." *The Futurist* 29 (January/February): 14-18.
- Bailey, R. (ed.) 1995c. *The True State of the Planet*. New York: The Free Press.
- Banerjee, S., T. Das, J. Roy, and D. Chakraborty. 1992. "Population Growth, Energy Utilisation Pattern and Environmental Degradation: A Micro Study." *Demography India* 21 (2): 281-290.
- Baranzini, A. and G. Pillet. 1994. "The Physical and Biological Environment, the Economy and Sustainable Development." Pp. 139-162 in *Economy, Environment, and Technology*, ed. B. Bürgenmeier. Armonk, NY: M.E. Sharpe.
- Barbier, E.B. 1987. "The Concept of Sustainable Economic Development." *Environmental Conservation* 14 (2): 101-110.
- Barbier, E.B. 1989. *Economics, Natural Resource Scarcity, and Development: Conventional and Alternative Views*. London: Earthscan.
- Barbier, E.B. and A. Markandya. 1990. "The Conditions for Achieving Environmentally Sustainable Development." *European Economic Review* 34 (May): 659-669.
- Barkin, D. 1991. "State Control of the Environment: Politics and Degradation in Mexico." *Capitalism, Nature, Socialism* 2 (1): 86-108.
- Barrett, S. 1992. "Economic Growth and Environmental Preservation." *Journal of Environmental Economics and Management* 23 (November): 289-300.
- Barrow, C.J. 1995. *Developing the Environment: Problems and Management*. Essex: Longman Scientific & Technical.
- Bartelmus, P. 1994. *Environment, Growth and Development: The Concepts and Strategies of Sustainability*. London: Routledge.
- Bartlett, A.A. 1994. "Reflections on Sustainability, Population Growth, and the Environment." *Population and Environment* 16 (September): 5-35.
- Baucus, Senator M. 1993. "Environmental Policy and Trade Agreements: The Next Nexus." Pp. 257-266 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Beanlands, G. 1995. "Cumulative Effects and Sustainable Development." Pp. 77-87 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.

- Beckerman, W. 1974a. "Economists, Scientists, and Environmental Catastrophe." *Oxford Economic Papers* 24 (3): 327-344.
- Beckerman, W. 1974b. *In Defence of Economic Growth*. London: Jonathan Cape.
- Beckerman, W. 1992. "Economic Growth and the Environment: Whose Growth? Whose Environment?" *World Development* 20 (4): 481-496.
- Bednarz, R.S. and J.R. Giardino. 1988. "Development and Resources in the Third World." Pp. 67-81 in *The Third World: States of Mind and Being*, eds. J. Norwine and A. Gonzalez. Boston: Unwin Hyman.
- Bennett, J.W. 1976. *The Ecological Transition: Cultural Anthropology and Human Adaptation*. New York: Pergamon.
- Berlin, K. and J.M. Lang. 1993. "Trade and the Environment." *Washington Quarterly* 16 (4): 35-51.
- Berkes, F. (ed.) 1989. *Common Property Resources: Ecology and Community-Based Sustainable Development*. London: Belhaven.
- Bhagwati, J. 1993. "Trade and the Environment: The False Conflict?" Pp. 159-190 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Bhalla, A.S. (ed.) 1992. *Environment, Employment, and Development*. Geneva: International Labour Office.
- Bienen, H. and H.J. Leonard. 1985. "Environment, Economic Growth, and Distribution in the Third World." Pp. 51-89 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.
- Biggs, G. 1992. "The Interrelationship Between the Environment and International Trade in Latin America: The Legal and Institutional Framework." Pp. 167-204 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Bilsborrow, R. 1987. "Population Pressures and Agricultural Development in Developing Countries: A Conceptual Framework and Recent Evidence." *World Development* 15 (2): 183-203.
- Bilsborrow, R. 1992. *Rural Poverty, Migration, and the Environment in Developing Countries: Three Case Studies*. Policy Research Working Papers. Washington, DC: The World Bank.
- Birdsall, N. and C.C. Griffin. 1988. "Fertility and Poverty in Developing Countries." *Journal of Policy Modeling* 10 (1): 29-56.
- Black, R. 1994. "Forced Migration and Environmental Change: The Impact of Refugees on Host Environments." *Journal of Environmental Management* 42 (September): 261-277.
- Blaikie, P. 1989. "Environment and Access to Resources in Africa." *Africa* 59 (1): 18-40.
- Bloom, D.E. 1995. "International Public Opinion on the Environment." *Science* 269 (21 July): 354-358.

- Bojo, J., K-G. Mäler, and L. Unemo. 1990. *Environment and Development: An Economic Approach*. Hingham, MA: Kluwer Academic Publishers.
- Botkin, D.B. 1990. *Discordant Harmonies: A New Ecology for the Twenty-first Century*. New York: Oxford University Press.
- Bowander, B. 1987. "Environmental Problems in Developing Countries." *Progress in Physical Geography* 11 (2): 246-259.
- Boxer, B. 1989. "China's Environmental Prospects." *Asian Survey* 29 (July): 669-686.
- Boyden, S. and S. Dovers. 1992. "Natural Resource Consumption and its Environmental Consequences in the Western World: Impacts of Increasing Per Capita Consumption." *Ambio* 21 (1): 63-69.
- Bradshaw, Y.W. 1987. "Urbanization and Underdevelopment: A Global Study of Modernization, Urban Bias, and Economic Dependency." *American Sociological Review* 52 (April): 224-239.
- Broad, R. 1994. "The Poor and the Environment: Friends or Foes?" *World Development* 22 (6): 811-822.
- Bromley, D. 1985. "Resources and Economic Development." *Journal of Economic Issues* 19 (4): 779-796.
- Brookfield, H. 1981. "Man, Environment, and Development in the Outer Islands of Fiji." *Ambio* 10 (2/3): 59-67.
- Brookfield, H. 1988. "Sustainable Development and the Environment." *Journal of Development Studies* 25 (October): 126-135.
- Brookfield, H. and Y. Byron (eds.) 1993. *South-East Asia's Environmental Future: The Search for Sustainability*. Kuala Lumpur: Oxford University Press.
- Brookfield, H.C. 1980-81. "Development and the Environment: Politics, Production and Pollution." *Pacific Affairs* 53 (Winter): 661-681.
- Brooks, H. 1980. "Technology, Evolution, and Purpose." *Daedalus* 109 (Winter): 65-81.
- Brown, J.W. 1990. *In the U.S. Interest: Resources, Growth, and Scarcity in the Developing World*. Boulder, CO: Westview Press.
- Brown, J.W. and L. Kimball. 1993. "Needed: New Rules and Mechanisms for Dealing with Trade and Environment Issues in the Western Hemisphere." Pp. 205-223 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Brown, L.R. 1976. *World Population Trends: Signs of Hope, Signs of Stress*. Worldwatch Paper No. 8. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1977. *Redefining National Security*. Worldwatch Paper No. 14. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1978. *The Global Economic Prospect: New Sources of Economic Stress*. Worldwatch Paper No. 20. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1989a. "Global Ecology at the Brink." *Challenge* 32 (2): 14-22.

- Brown, L.R. 1989b. "What Does Global Change Mean for Society?" Pp. 103-124 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Brown, L.R. 1990. "The Illusion of Progress." Pp. 3-16 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1991. "The New World Order." Pp. 3-20 in *State of the World 1991*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1993. "A New Era Unfolds." Pp. 3-21 in *State of the World 1993*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1995. "Nature's Limits." Pp. 3-20 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and H. Kane. 1994. *Full House: Reassessing the Earth's Population Carrying Capacity*. New York: W.W. Norton.
- Brown, L.R. and E.C. Wolf. 1985. *Reversing Africa's Decline*. Worldwatch Paper No. 65. Washington, DC: Worldwatch Institute.
- Brown, L.R., P. McGrath, and B. Stokes. 1992. *Twenty-two Dimensions of the Population Problem*. Worldwatch Paper No. 5. Washington, DC: Worldwatch Institute.
- Brown, N. 1989. "Climate, Ecology and International Security." *Survival* 31 (6): 519-532.
- Brundtland, G.H. 1989. "Global Change and Our Common Future: The Benjamin Franklin Lecture." Pp. 10-18 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Bucher, E.H. 1995. "Indicators of Biophysical Sustainability: Case Study of the Chaco Savannas of South America." Pp. 147-152 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Burnett, A. 1992. *The Western Pacific: Challenge to Sustainable Growth*. London: Earthscan.
- Butler, C. 1994. "Overpopulation, Overconsumption, and Economics." *Lancet* 343 (5 March): 582-584.
- Buttel, F.H. and P. Taylor. 1992. "Environmental Sociology and Global Environmental Change: A Critical Assessment." *Society and Natural Resources* 5 (2): 211-230.
- Buttel, F.H., A.P. Hawkins, and A.G. Power. 1990. "From Limits to Growth to Global Change: Constraints and Contradictions in the Evolution of Environmental Science and Ideology." *Global Environmental Change* 1 (December): 57-66.
- Caldwell, J.C. and P. Caldwell. 1994. "Rapid Population Growth and Fragile Environments: The Sub-Saharan African and South Asian Experience." Pp. 355-369 in *Human Reproductive Ecology: Interactions of Environment,*

- Fertility, and Behavior*, eds. K.L. Campbell and J.W. Wood. New York: New York Academy of Sciences.
- Caldwell, L.K. 1984. "Political Aspects of Ecologically Sustainable Development." *Environmental Conservation* 11 (4): 299-308.
- Carey, D.I. 1993. "Development Based on Carrying Capacity: A Strategy for Environmental Protection." *Global Environmental Change* 3 (2): 140-148.
- Carley, M. and I. Christie. 1993. *Managing Sustainable Development*. London: Earthscan.
- Carriere, J. 1991. "The Crisis in Costa Rica: An Ecological Perspective." Pp. 184-204 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Cassen, R. 1976. "Population and Development: A Survey." *World Development* 4 (10/11): 785-830.
- Cassen, R. 1993. "Economic Implications of Demographic Change." *Transactions of the Royal Society of Tropical Medicine and Hygiene* 87: S113-18.
- Cassen, R. 1994. "Overview: Population and Development: Old Debates, New Conclusions." Pp. 1-26 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Cassen, R. and Contributors. 1994. *Population and Development: Old Debates, New Conclusions*. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Castilla, J.C. 1995. "The Sustainability of Natural Renewable Resources as Viewed by an Ecologist and Exemplified by the Fishery of the Mollusc *Concholepas concholepas* in Chile." Pp. 153-159 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Cecil, R.G. 1987. "Research Issues and Directions in Resources and Environment in the Third World." Pp. 31-56 in *Research, Resources and the Environment in Third World Development*, eds. J.G. Nelson and K.D. Knight. Department of Geography Publication Series No. 27. Waterloo, Ontario: University of Waterloo.
- Champagne, D. 1990. "Culture, Differentiation, and Environment: Social Change in Tlingit Society." Pp. 52-81 in *Differentiation Theory and Social Change: Comparative and Historical Perspectives*, eds. J.C. Alexander and P. Colomy. New York: Columbia University Press.
- Chan, K.C. 1995. "The Three Gorges Project of China: Resettlement Prospects and Problems." *Ambio* 24 (2): 98-102.
- Chandler, W.U. 1986. *The Changing Role of the Market in National Economies*. Worldwatch Paper No. 72. Washington, DC: Worldwatch Institute.

- Charnovitz, S. 1993. "Environmental Harmonization and Trade Policy." Pp. 267-286 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Chatterjee, P. and M. Finger. 1994. *The Earth Brokers: Power, Politics and World Development*. New York: Routledge.
- Choucri, N. and R.C. North. 1993a. "Growth, Development, and Environmental Sustainability: Profiles and Paradox." Pp. 67-132 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Choucri, N. and R.C. North. 1993b. "Population and (In)security: National Perspectives and Global Imperatives." Pp. 229-256 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Chowdhury, K. 1994. "Interrelationships Between Population, Environment and Poverty: Population Growth and Distribution, Agricultural Productivity, and Rural Poverty (Including Environment)." Pp. 43-48 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Clark, W.C. 1986. "Sustainable Development of the Biosphere." Pp. 5-48 in *Sustainable Development of the Biosphere*, eds. W.C. Clark and R.E. Munn. Cambridge: Cambridge University Press.
- Cohen, J.E. 1995a. *How Many People Can the Earth Support?* New York: W.W. Norton.
- Cohen, J.E. 1995b. "Population Growth and the Earth's Human Carrying Capacity." *Science* 269 (21 July): 341-346.
- Colchester, M. 1993. "Pirates, Squatters and Poachers: The Political Ecology of Dispossession of Native Peoples of Sarawak." *Global Ecology and Biogeography Letters* 3 (4-6): 158-179.
- Cole, J.P. 1981. *The Development Gap: A Spatial Analysis of World Poverty and Inequality*. Chichester: Wiley.
- Common, M. 1995. *Sustainability and Policy: Limits to Economics*. Cambridge: Cambridge University Press.
- Commoner, B. 1991. "Rapid Population Growth and Environmental Stress." *International Journal of Health Services* 21 (2): 199-227.
- Commoner, B. 1993. "Population, Development, and the Environment: Trends and Key Issues in the Developed Countries." *International Journal of Health Services* 23 (3): 519-539.
- Cooper, R.N. 1991. "The World Economic Climate." Pp. 227-235 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.

- Cropper, M. and W.E. Oates. 1992. "Environmental Economics: A Survey." *Journal of Economic Literature* 30 (2): 675-740.
- Cropper, M. and C. Griffiths. 1994. "The Interaction of Population Growth and Environmental Quality." *American Economic Review* 84 (2): 250-254.
- de la Court, T. 1990. *Beyond Brundtland: Green Development in the 1990s*. London: Zed Books.
- Culbertson, J.M. 1971. *Economic Development: An Ecological Approach*. New York: Alfred A. Knopf.
- Daily, G.C. and P.R. Ehrlich. 1992. "Population, Sustainability, and Earth's Carrying Capacity." *BioScience* 42 (10): 761-771.
- Daily, G.C., A.H. Ehrlich, and P.R. Ehrlich. 1995. "Socioeconomic Equity: A Critical Element in Sustainability." *Ambio* 24 (1): 58-59.
- Dalby, S. 1992. "Ecopolitical Discourse: 'Environmental Security' and Political Geography." *Progress in Human Geography* 16 (4): 503-522.
- Daly, H.E. 1974. "The Economics of the Steady State." *American Economic Review* 64 (May): 15-21.
- Daly, H.E. 1991. "Sustainable Development: From Concept and Theory to Operational Principles." Pp. 25-43 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the *Population and Development Review*. New York: Oxford University Press.
- Daly, H.E. 1992a. "From Empty-world Economics to Full-world Economics: Recognizing an Historical Turning Point in Economic Development." Pp. 23-37 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Daly, H.E. 1992b. "The Unison Snoring of Supine Economists in Deep Dogmatic Slumber." *International Society for Ecological Economics Newsletter* 3 (2): 3-4.
- Daly, H.E. 1993. "Problems with Free Trade: Neoclassical and Steady-State Perspectives." Pp. 147-157 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Daly, H.E. and R. Goodland. 1994a. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT." *Ecological Economics* 9 (January): 73-92.
- Daly, H.E. and R.E. Goodland. 1994b. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT: Part I." *Population and Environment* 15 (May): 395-427.
- Daly, H.E. and R.E. Goodland. 1994c. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT: Part II." *Population and Environment* 15 (July): 477-503.

- Dasgupta, P.S. 1995. "Population, Poverty and the Local Environment." *Scientific American* 272 (February): 26-31.
- Dasgupta, P. and K.G. Mäler. 1994. *Poverty, Institutions, and the Environmental Resource Base*. World Bank Environment Paper 9. Washington, DC: The World Bank.
- Davis, D.E. 1991. "Uncommon Futures: The Rhetoric and Reality of Sustainable Development." *Environment, Technology, & Society*, No. 63 (Spring): 2-5.
- Davis, S.H. 1977. *Victims of the Miracle: Development and the Indians of Brazil*. Cambridge: Cambridge University Press.
- de Onis, J. 1992. *The Green Cathedral: Sustainable Development of Amazonia*. New York: Oxford University Press.
- Dean, W. 1987. *Brazil and the Struggle for Rubber: A Study in Environmental History*. Cambridge: Cambridge University Press.
- DeBellevue, E.G., E. Hitzel, K. Cline, J.A. Benetiz, J. Ramos-Miranda, and O. Segura. 1994. "The North American Free Trade Agreement: An Ecological-Economic Synthesis for the United States and Mexico." *Ecological Economics* 9 (January): 53-71.
- Denniston, D. 1995. *High Priorities: Conserving Mountain Ecosystems and Cultures*. Worldwatch Paper No. 123. Washington, DC: Worldwatch Institute.
- Derbyshire, E. 1990. "Environment: Understanding and Transforming the Physical Environment." Pp. 80-101 in *The Geography of Contemporary China: The Impact of Deng Xiaoping's Decade*, eds. T. Cannon and A. Jenkins. New York: Routledge.
- Deudney, D. 1983. *Whole-Earth Security: A Geopolitics of Peace*. Worldwatch Paper No. 55. Washington, DC: Worldwatch Institute.
- Deudney, D. 1990. "The Case Against Linking Environmental Degradation and National Security." *Millennium* 19 (3): 461-476.
- Devalle, S.B.C. 1993. "Territory, Forests, and Historical Continuity: Indigenous Rights and Natural Resources." Pp. 73-81 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Diaz-Briquets, S. 1986. "Conflict in Central America: The Demographic Dimension." *Population Trends and Public Policy*, No. 10 (February). Washington, DC: Population Reference Bureau.
- Dilworth, C. 1994. "Two Perspectives on Sustainable Development." *Population and Environment* 15 (July): 441-467.
- Dixon, J.A. 1990. "Renewable Resources, the Environment and Sustained Growth: The Next Twenty-five Years." *ASEAN Economic Bulletin* 7 (2): 159-172.
- Dixon, J.A. and L.A. Fallon. 1989. "The Concept of Sustainability: Origins, Extensions, and Usefulness for Policy." *Society and Natural Resources* 2 (2): 73-84.

- Documents. 1990. "Prince Philip on Population and the Conservation of Nature." *Population and Development Review* 16 (June): 387-395.
- Documents. 1993a. "Gro Harlem Brundtland on Population, Environment, and Development." *Population and Development Review* 19 (December): 893-899.
- Documents. 1993b. "Recommendations of the Latin American and Caribbean Regional Conference on Population and Development." *Population and Development Review* 19 (December): 883-893.
- Dooge, J.C.I., G.T. Goodman, J.W.M. la Rieviere, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie (eds.). 1992. *An Agenda for Science in Environment and Development*. Cambridge: Cambridge University Press.
- Dorner, P. and M.A. El-Shafie. 1980. "Natural Resource Issues in Economic Development: The International Setting." Pp. 17-34 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Dourojeanni, M.J. 1989. "View from the South." Pp. 198-203 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Dove, M.R. 1993. "The Coevolution of Population and Environment: The Ecology and Ideology of Feedback Relations in Pakistan." *Population and Development Review* 15 (2): 89-111.
- Dovers, S.R. and J.W. Handmer. 1995. "Ignorance, the Precautionary Principle, and Sustainability." *Ambio* 24 (2): 98-102.
- Drangert, J.-O. 1994. "Rapid Population Increase --- A Development Trap. A Study of a Social Sector Development in Rural Tanzania." *Ambio* 23 (4/5): 309-311.
- Dunlap, R.E., G.H. Gallup, Jr., and A.M. Gallup. 1993. "Of Global Concern: Results of the Health of the Planet Survey." *Environment* 35 (9): 7-15, 33-39.
- Durning, A.T. 1989. *Action at the Grassroots: Fighting Poverty and Environmental Decline*. Worldwatch Paper No. 88. Washington, DC: Worldwatch Institute.
- Durning, A.T. 1989. *Poverty and the Environment: Reversing the Downward Spiral*. Worldwatch Paper No. 92. Washington, DC: Worldwatch Institute.
- Durning, A.T. 1990. *Apartheid's Environmental Toll*. Worldwatch Paper No. 95. Washington, DC: Worldwatch Institute.
- Eberstadt, N. 1995. "Population, Food, and Income: Global Trends in the Twentieth Century." Pp. 7-47 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Economic Commission for Latin America and the Caribbean (ECLAC). 1991. *Sustainable Development: Changing Production Patterns, Social Equity and the Environment*. Santiago, Chile: United Nations.

- Economic and Social Commission for Asia and the Pacific (ESCAP). 1985. *State of the Environment in Asia and the Pacific*. Bangkok: ESCAP.
- Economic and Social Commission for Asia and the Pacific (ESCAP). 1992. *State of the Environment in Asia and the Pacific*. 1990. Bangkok: ESCAP.
- Eden, S.E. 1994. "Using Sustainable Development: The Business Case." *Global Environmental Change* 4 (2): 160-167.
- Edmonds, R.L. 1994a. "China's Environment." Pp. 143-170 in *China Briefing*, 1994, ed. W.A. Joseph. Boulder, CO: Westview.
- Edmonds, R.L. 1994b. *Patterns of China's Lost Harmony: A Survey of the Country's Environmental Degradation and Protection*. New York: Routledge.
- Ekins, P. 1989. "Beyond Growth: The Real Priorities of Sustainable Development." *Environmental Conservation* 16 (Spring): 5-12.
- Ekins, P. 1994. "The Environmental Sustainability of Economic Processes: A Framework for Analysis." Pp. 25-55 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Ekins, P., C. Folke, and R. Costanza. 1994. "Trade, Environment and Development: The Issues in Perspective." *Ecological Economics* 9 (January): 1-12.
- El-Ashry, M.T. 1993. "Development Assistance Institutions and Sustainable Development." *Washington Quarterly* 16 (2): 83-96.
- Ellen, R. 1993. "Rhetoric, Practice and Incentive in the Face of Changing Times: A Case Study in Nuaulu Attitudes to Conservation and Deforestation." Pp. 126-143 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Elliott, J.A. 1994. *An Introduction to Sustainable Development: The Developing World*. New York: Routledge.
- Emery, K.O. 1994. "Uncontrolled Growth of Human Populations, Geological Background, and Future Prospects." *Population and Environment* 15 (4): 303-327.
- Esty, D.C. 1993. "Integrating Trade and Environment Policy Making: First Steps in the North American Free Trade Agreement." Pp. 45-55 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Esty, D.C. 1994. *Greening the GATT: Trade, Environment, and the Future*. Washington, DC: Institute for International Economics.
- Faber, D. 1992. *Environment Under Fire: Imperialism and Ecological Crisis in Central America*. New York: Monthly Review Press.
- Fan Zhijie and R.P. Cote. 1991. "Population, Development and Marine Pollution in China." *Marine Policy* 15 (May): 210-219.

- Farvar, M.T. and J.P. Milton (eds.). 1972. *The Careless Technology: Ecology and International Development*. Garden City, NY: The Natural History Press.
- Firebaugh, G. 1983. "Scale Economy or Scale Entropy? Country Size and Rate of Economic Growth, 1950-1977." *American Sociological Review* 48 (April): 257-269.
- Fisher, W.H. 1994. "Megadevelopment, Environmentalism, and Resistance" The Institutional Context of Kayapó Indigenous Politics in Central Brazil." *Human Organization* 53 (Fall): 220-232.
- Foster, J.B. 1994. *The Vulnerable Planet: A Short Economic History of the Environment*. New York: Monthly Review Press.
- Foy, G. and H.E. Daly. 1989. *Allocation, Distribution and Scale as Determinants of Environmental Degradation: Case Studies of Haiti, El Salvador, and Costa Rica*. World Bank Environment Department Working Paper No. 19. Washington, DC: The World Bank.
- French, H.F. 1993. *Costly Tradeoffs: Reconciling Trade and the Environment*. Worldwatch Paper No. 113. Washington, DC: Worldwatch Institute.
- Fuller, R. 1980. *Inflation: The Rising Cost of Living on a Small Planet*. Worldwatch Paper No. 34. Washington, DC: Worldwatch Institute.
- Gadgil, M. and F. Guha. 1992. *This Fissured Land: An Ecological History of India*. Delhi: Oxford University Press.
- Gallopin, G.C., P. Guiman, and H. Maletta. 1989. "Global Impoverishment, Sustainable Development and the Environment: A Conceptual Approach." *International Social Science Journal* 121: 375-397.
- Garcia-Barrios, R. and L. Garcia-Barrios. 1990. "Environmental and Technological Degradation in Peasant Agriculture: A Consequence of Development in Mexico." *World Development* 18 (11): 1569-1585.
- Geertz, C. 1963. *Agricultural Involution: The Process of Ecological Change in Indonesia*. Berkeley: University of California Press.
- Georgescu-Roegen, N. 1971. *The Entropy Law and the Economic Process*. Cambridge, MA: Harvard University Press.
- Ghee, L.T. and M.J. Valencia (eds.) 1990. *Conflict Over Natural Resources in Southeast Asia and the Pacific*. Singapore: Oxford University Press.
- Ghosh, P.K. (ed.) 1984. *Population, Environment, Resources, and Third World Development*. Westport, CT: Greenwood.
- Giampietro, M., S. Bukkens, and D. Pimentel. 1992. "Limits to Population Size: Three Scenarios of Energy Interaction Between Human Society and the Ecosystem." *Population and Environment* 14: 109-131.
- Gibbs, J.P. and W.T. Martin. 1962. "Urbanization, Technology, and the Division of Labor: International Patterns." *American Sociological Review* 27: 667-777.
- Gilland, B. 1986. "On Resources and Economic Development." *Population and Development Review* 12 (2): 295-305.

- Glaeser, B. 1984. *Ecodevelopment: Concepts, Projects, Strategies*. Oxford: Pergamon.
- Glaeser, B. (ed.) 1987. *Learning from China? Development and Environment in Third World Countries*. London: Allen and Unwin.
- Glaeser, B. 1990. "The Environmental Impact of Economic Development: Problems and Policies." Pp. 249-265 in *The Geography of Contemporary China: The Impact of Deng Xiaoping's Decade*, eds. T. Cannon and A. Jenkins. New York: Routledge.
- Gleick, P.H. 1993. "Water and Conflict: Fresh Water Resources and International Security." *International Security* 18 (1): 79-112.
- Golan, E.H. 1994. "Sustainability and Migration: Experiments from the Senegalese Peanut Basin." *Annals of Regional Science* 28 (1): 91-106.
- Goldemberg, J. 1995. "Energy Needs in Developing Countries and Sustainability." *Science* 269 (25 August): 1058-1059.
- Goldstone, J.A. 1984. "Urbanization and Inflation: Lessons from the English Price Revolution of the Sixteenth and Seventeenth Centuries." *American Journal of Sociology* 89 (March): 1122-1160.
- Goldstone, J.A. 1986. "State Breakdown in the English Revolution: A New Synthesis." *American Journal of Sociology* 92 (September): 257-322.
- Goldstone, J.A. 1988. "Regional Ecology and Agrarian Development in England and France." *Politics & Society* 16 (June/September): 287-334.
- Goldstone, J.A. 1991. *Revolution and Rebellion in the Early Modern World*. Berkeley: University of California Press.
- Goldstone, J.A. 1995. "The Coming Chinese Collapse." *Foreign Policy* 99 (Summer): 35-52.
- Goodland, R. 1992. "The Case That the World Has Reached Limits." Pp. 3-22 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Goodland, R. and H.E. Daly. 1992a. "Approaching Global Environmental Sustainability." *World Development* 20 (1): 35-41.
- Goodland, R. and H.E. Daly. 1992b. "Ten Reasons Why Northern Income Growth Is Not the Solution to Southern Poverty." Pp. 128-145 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Goodland, R. and H.E. Daly. 1992c. "Three Steps towards Global Environmental Sustainability (Part I)." *Development* 1992 (2): 35-41.
- Goodland, R. and G. Ledec. 1987. "Neoclassical Economics and Principles of Sustainable Development." *Ecological Modelling* 38: 19-46.
- Goodland, R., H.E. Daly, and J. Kellenberg. 1994. "Burden Sharing in the Transition to Environmental Sustainability." *Futures* 26 (2): 146-155.

- Goodland, R., H.E. Daly, and S. El Sarafy. 1993. "The Urgent Need for Rapid Transition to Global Environmental Sustainability." *Environmental Conservation* 20 (4): 297-309.
- Goodland, R.E., H. Daly, S. El Sarafy, and B. von Droste (eds.). 1991. *Environmentally Sustainable Economic Development: Building on Brundtland*. Paris: UNESCO.
- Goodman, D. and M. Redclift (eds.) 1991. *Environment and Development in Latin America: The Politics of Sustainability*. New York: St. Martin's Press.
- Gordon, A. 1993. "Smallholder Commercial Cultivation and the Environment: Rubber in Southeast Asia." Pp. 135-153 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Gordon, A. and D. Suzuki. 1990. *A Matter of Survival*. Cambridge: Harvard University Press.
- Gore, Jr., A. 1989. "The Global Environment: A National Security Issue." Pp. 177-186 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Graham-Smith, F. (ed.). 1994. *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*. Golden, CO: North American Press.
- Green, C.P. 1992. "The Environment and Population Growth: Decade for Action." *Population Reports*, Series M, No. 10 (May).
- Groenewegen, J., W. Schreinders, and K. van Paridon. 1992. "Environment, Growth, and Sustainability." *Journal of Economic Issues* 26 (September): 915-919.
- Grossman, G.M. and A.B. Krueger. 1995. "Economic Growth and the Environment." *Quarterly Journal of Economics* 110 (May): 353-377.
- Grossman, L.S. 1984. *Peasants, Subsistence Ecology and Development in the Highlands of Papua New Guinea*. Princeton, NJ: Princeton University Press.
- Grübler, A. 1994. "Industrialization as a Historical Phenomenon." Pp. 43-68 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Haavelmo, T. and S. Hansen. 1992. "On the Strategy of Trying to Reduce Economic Inequality by Expanding the Scale of Human Activity." Pp. 38-51 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Sarafy. Washington, DC: Island Press.
- Hall, A.L. 1989. *Developing Amazonia: Deforestation and Social Conflict in Brazil's Carajas Program*. Manchester: Manchester University Press.
- Hannah, L., D. Lohse, C. Hutchinson, J.L. Carr, and A. Lankernie. 1994. "A Preliminary Inventory of Human Disturbance of World Ecosystems." *Ambio* 23 (4/5): 246-250.
- Hansen, S. 1992. "Population and the Environment." *African Development Review* 4 (2): 118-164.

- Hardjono, J. (ed.). 1991a. *Indonesia: Resources, Ecology, and Environment*. New York: Oxford University Press.
- Hardjono, J. 1991b. "The Dimensions of Indonesia's Environmental Problems." Pp. 1-16 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Harf, J.E. and B.T. Trout. 1986. *The Politics of Global Resources: Energy, Environment, Population, and Food*. Durham, NC: Duke University Press.
- Harrison, P. 1987. *The Greening of Africa: Breaking Through the Battle of Land and Food*. London: Paladin.
- Harrison, P. 1992. *The Third Revolution: Environment, Population and a Sustainable World*. London: I.B. Tauris & Co., Ltd./Penguin Books.
- Harwell, C. and R. Rosenberg. 1993. "Free Trade and the Environment: The Hemispheric Challenge." Pp. 111-126 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Hecht, S.B. 1985. "Environment, Development and Politics: Capital Accumulation and the Livestock Sector in Eastern Amazonia." *World Development* 13 (6): 663-684.
- Hecklau, H. 1993. "Demographic Problems of Development in Kenya." *Applied Geography and Development* 41: 26-38.
- Heckman, J. 1985. "Culture and the Environment on the Cape Verde Islands." *Environmental Management* 9 (2): 141-150.
- Hemming, J. (ed.) 1985. *Change in the Amazon Basin: The Frontier After a Decade of Colonization*. Manchester: Manchester University Press.
- Hern, W. 1990. "Why Are There So Many of Us? Description and Diagnosis of a Planetary Ecopathological Process." *Population and Environment* 12 (1): 9-42.
- Higgins, B. and J.D. Higgins. 1979. *Economic Development of a Small Planet*. New York: W.W. Norton.
- Higgins, G.M., A.H. Kassam, L. Naiken, G. Fischer, and M. Shah. 1982. *Potential Population Supporting Capacities of Lands in the Developing World*. Rome: Food and Agricultural Organization of the United Nations.
- Hinterberger, F. 1994. "Biological, Cultural, and Economic Evolution and the Economy-Ecology Relationship." Pp. 57-81 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Hirsch, F. 1977. *Social Limits to Growth*. London: Routledge and Kegan Paul.
- Holdren, J.P., G.C. Daily, and P.R. Ehrlich. 1995. "The Meaning of Sustainability: Biogeophysical Aspects." Pp. 3-17 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.

- Holling, C.S. 1995. "Sustainability: The Cross-Scale Dimension." Pp. 65-75 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Holloway, M. 1993. "Sustaining the Amazon." *Scientific American* 269 (1): 76-84.
- Holmberg, J. and R. Sandbrook. 1992. "Sustainable Development: What is to be Done." Pp. 19--38 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Homer-Dixon, T.F. 1991. "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* 16 (Fall): 76-116.
- Homer-Dixon, T.F. 1993a. "Global Environmental Change and International Security." Pp. 185-228 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Homer-Dixon, T.F. 1993b. "Physical Dimensions of Global Change." Pp. 43-66 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Homer-Dixon, T.F. 1994a. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19 (Summer): 5-40.
- Homer-Dixon, T.F. 1994b. *Population and Conflict*. Distinguished Lecture Series on Population and Development. Liège: International Union for the Scientific Study of Population.
- Homer-Dixon, T.F., J.H. Boutwell, and G.W. Rathjens. 1993. "Environmental Change and Violent Conflict." *Scientific American* (February): 16-23.
- Howard, M.C. (ed.) 1993a. *Asia's Environmental Crisis*. Boulder, CO: Westview Press.
- Howard, M.C. 1993b. "Introduction." Pp. 1-35 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Howard, M.C. 1993c. "Small-Scale Mining and the Environment in Southeast Asia." pp. 83-110 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Howarth, R.B. and R.B. Norgaard. 1990. "Intergenerational Resource Rights, Efficiency, and Social Optimality." *Land Economics* 66 (February): 1-11.
- Howarth, R.B. and R.B. Norgaard. 1992. "Environmental Valuation under Sustainable Development." *American Economic Review* 82 (May): 473-477.
- Hoy, D.R. and F.J. Belisle. 1984. "Environmental Protection and Economic Development in Guatemala's Western Highlands." *Journal of Developing Areas* 18 (January): 161-167.
- Hueting, R. 1990. "The Brundtland Report: A Matter of Conflicting Goals." *Ecological Economics* 2 (2): 109-118.
- Humphrey, C.R. and F.R. Buttel. 1982. *Environment, Energy, and Society*. Belmont, CA: Wadsworth.

- Huq, S. 1994. "Global Industrialization: A Developing Country Perspective." Pp. 107-113 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Hurst, P. 1990. *Rainforest Politics: Ecological Destruction in South-East Asia*. London: Zed Books.
- Iglesias, E.V. 1992. "The Delicate Balance between Environment and Development: The Latin American Experience." Pp. 38-45 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Ives, J.D. 1988. "The Theory of Himalayan Environmental Degradation: Its Validity and Application Challenged by Recent Research." *Mountain Research and Development* 7: 189-199.
- Ives, J.D. and B. Messerli. 1989. *The Himalayan Dilemma: Reconciling Development and Conservation*. London: Routledge.
- Jackson, C. 1993. "Doing What Comes Naturally? Women and Environment in Development." *World Development* 21 (12): 1947-1963.
- Jackson, J.H. 1993. "World trade Rules and Environmental Policies: Congruence or Conflict?" Pp. 219-235 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Jacob, M. 1994. "Toward a Methodological Critique of Sustainable Development." *Journal of Developing Areas* 28 (January): 237-252.
- Jacobson, J.L. 1988. *Environmental Refugees: A Yardstick of Habitability*. Worldwatch Paper No. 86. Washington, DC: Worldwatch Institute.
- Jacobson, J.L. 1992. *Gender Bias: Roadblock to Sustainable Development*. Worldwatch Paper No. 110. Washington, DC: Worldwatch Institute.
- James, D.E., P. Nijkamp, and J.B. Opachoor. 1989. "Ecological Sustainability and Economic Development." Pp. 27-48 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Jansson, A.M., M. Hammer, C. Folke, and R. Costanza (eds.). 1994. *Investing in Natural Capital: The Ecological Economics Approach to Sustainability*. Washington, DC: Island Press.
- Jha, S.C., A.B. Deolalikar, and E.M. Pernia. 1993. "Population Growth and Economic Development Revisited with Reference to Asia." *Asian Development Review* 11 (2): 1-46.
- Jodha, N. 1987. "Depletion of Common Property Resources in India: Micro-Level Evidence from Selected Areas." Pp. 261-283 in *Rural Development and Population: Institutions and Policy*, eds. G. McNicoll and M. Cain. New York: Oxford University Press.

- Johnson, D.H. and D.M. Anderson (eds.) 1988. *The Ecology of Survival*. Boulder, CO: Westview Press.
- Jones, G. 1991. "Population, Resources and Environment." Pp. 264-276 in *Population and Development Planning in China*, eds. Wang Jiye and T.H. Hull. Sidney, Australia: Allen & Unwin.
- Jones, W.O. 1965. "Environment, Technical Knowledge, and Economic Development." Pp. 29-48 in *Ecology and Economic Development in Tropical Africa*, ed. D. Brokensha. Research Series No. 9. Berkeley: Institute of International Studies, University of California.
- Juda, L. 1979. "International Environmental Concern: Perspectives of and Implications for Developing States." Pp. 90-107 in *The Global Predicament: Ecological Perspectives on World Order*, eds. D.W. Orr and M.S. Soroos. Chapel Hill, NC: University of North Carolina Press.
- Kaji, G. 1994. "Challenge to the East Asian Environment." *Pacific Review* 7 (2): 215-222.
- Kane, H. 1993. "Managing Through Prices, Managing Despite Prices." Pp. 57-67 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Kane, H. 1995. "Leaving Home." Pp. 132-149 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Karliner, J. 1989. "Central America's Other War." *World Policy Journal* 6 (4): 787-810.
- Karshenas, M. 1992. *Environment, Employment and Sustainable Development*. World Employment Programme Working Paper, No. WEP-2-22/WP.273. Geneva: International Labour Office.
- Kates, R. and V. Haarmann. 1992. "Where the Poor Live: Are the Assumptions Correct?" *Environment* 34 (4): 4-11, 25-28.
- Kelley, A.C. 1988. "Economic Consequences of Population Change in the Third World." *Journal of Economic Literature* 36 (4): 1685-1728.
- Kelley, A.C. and W.P. McGreevey. 1994. "Population and Development in Historical Perspective." Pp. 107-126 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Keyfitz, N. 1976. "World Resources and the Middle Class." *Scientific American* 235 (1): 28-35.
- Keyfitz, N. 1989. "The Growing Human Population." *Scientific American* 261 (September): 71-77A.
- Keyfitz, N. 1991a. "Population and Development Within the Ecosphere: One View of the Literature." *Population Index* 57 (Spring): 5-22.

- Keyfitz, N. 1991b. "Population Growth Can Prevent the Development that Would Slow Population Growth." Pp. 39-77 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Keyfitz, N. 1993. "Population and Sustainable Development: Distinguishing Fact and Preference Concerning the Future Human Population and Environment." *Population and Environment* 14 (May): 441-461.
- Keyfitz, N. and K. Lindahl-Kiessling. 1994. "The World Population Debate: Urgency of the Problem." Pp. 21-51 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Kibreab, G. 1994. "Migration, Environment and Refugeehood." Pp. 115-130 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Kim, O. and P. van den Oever. 1992. "Demographic Transitions and Patterns of Natural-Resources Uses in the Republic of Korea." *Ambio* 21 (1): 56-62.
- Kirdar, Ü. 1992. "Issues and Questions." Pp. 1-10 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Kirkby, J., P. O'Keefe, and L. Timberlake (eds.). 1995. *The Earthscan Reader in Sustainable Development*. London: Earthscan.
- Kleinman, D. 1981. *Human Adaptation and Population Growth: A Non-Malthusian Perspective*. Montclair, NJ: Allenheld, Osmun and Co.
- Kohli, K.N. and I. Ali. 1987. "Falling Commodity Prices: Implications for Asian and Pacific Developing Countries." *Asian Development Review* 5 (1): 44-60.
- Komin, S. 1993. "A Social Analysis of the Environmental Problems in Thailand." Pp. 257-2274 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Kopp, R.J. 1992. "The Role of Natural Assets in Economic Development." *Resources* 106 (Winter): 7-10.
- Knapp, G. 1991. *Andean Ecology: Adaptive Dynamics in Ecuador*. Boulder, CO: Westview Press.
- Kumar, N. 1993. "Biotechnologies and Sustainable Development: Potential and Constraints." Pp. 169-179 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Latin American and Caribbean Commission on Development and Environment. 1992. "Our Own Agenda: Interrelationship between the Environment, Development and Poverty." Pp. 108-121 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Lecomber, R. 1975. *Economic Growth versus the Environment*. London: Macmillan.

- Lee, J.A. and R.A. Goodland. 1986. "Economic Development and the Environment." *Finance and Development* 23 (4): 36-39.
- Lele, S.M. 1991. "Sustainable Development: A Critical Review." *World Development* 19 (6): 607-621.
- Lele, U. and S. Stone. 1989. *Population Pressure, the Environment, and Agricultural Intensification: Managing Agricultural Development in Africa*. Discussion Paper No. 4. Washington, DC: The World Bank.
- Leonard, H.J. (ed.). 1985a. *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*. New York: Holmes & Meier.
- Leonard, H.J. 1985b. "Political and Economic Causes of Third World Environmental Degradation." Pp. 93-136 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.
- Leonard, H.J. 1985c. "Resource Limitations, Environmental Deterioration, and Economic Progress: A Historical Perspective." Pp. 23-49 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.
- Leonard, H.J. 1990. "Environment and the Poor: Development Strategies for a Common Agenda." Pp. 3-45 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S. Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- Levin, S.A. 1995. "Scale and Sustainability: A Population and Community Perspective." Pp. 103-114 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by C.H. Peterson, *Ibid*, p. 115.]
- Lewis, L.A. and L. Berry. 1988. *African Environments and Resources*. London: Allen and Unwin.
- Libby, L.W. and R.L. Clouser. 1990. "Population and Global Economic Patterns." Pp. 7-31 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Lindahl-Kiessling, K. and H. Landsberg (eds.). 1994. *Population, Economic Development, and the Environment*. New York: Oxford University Press.
- Linear, M. 1982. "Gift of Poison: The Unacceptable Face of Development." *Ambio* 11 (1): 2-8.
- Lockwood, M. 1994. "Family Structure and Environmental Risk in Hausaland, Northern Nigeria." Pp. 287-309 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- London, B. 1987. "Structural Determinants of Third World Urban Change: An Ecological and Political Economic Analysis." *American Sociological Review* 52 (February): 454-463.

- Lopez, R. 1992. "Environmental Degradation and Economic Openness in LDCs: The Poverty Linkage." *American Journal of Agricultural Economics* 74 (December): 1138-1143.
- Lovejoy, T. 1985. "Development in a Water-Dominated Ecosystem, or Amazonian Ecology in a Time of Change." Pp. 66-69 in *Change in the Amazon Basin: Man's Impact on Forests and Rivers*, ed. J. Hemming. Manchester: Manchester University Press.
- Low, P. 1993. "The International Location of Polluting Industries and the Harmonization of Environmental Standards." Pp. 21-50 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Lutz, E. 1992a. "Agricultural Trade Liberalization, Price Changes, and Environmental Effects." *Environmental and Resource Economics* 2 (1): 79-89.
- Lutz, E. 1992b. "Trade and Environment: Discussion." *American Journal of Agricultural Economics* 74 (December): 1155-1156.
- Lutz, W. 1994 (ed.). 1994b. *The Future Population of the World: What Can We Assume Today?* London: Earthscan.
- Lutz, W. 1994b. "World Population Trends: Global and Regional Interactions Between Population and Environment." Pp. 41-65 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Lutzenberger, J. 1992. "Environment and Development: A View from Brazil." Pp. 13-18 in *Environment and Diplomacy in the Americas*, ed. H. Muñoz. Boulder, CO: Lynne Rienner.
- Mannion, A.M. 1991. *Global Environmental Change: A Natural and Cultural Environmental History*. New York: Wiley.
- Mannion, A.M. 1993. "Biotechnology and Global Change." *Global Environmental Change* 3 (4): 320-329.
- Marien, M. 1992. "Environmental Problems and Sustainable Futures: Major Literature from WCED to UNCED." *Futures* 24 (October): 731-757.
- Martinez-Alier, J. 1991. "Ecology and the Poor: A Neglected Dimension of Latin American History." *Journal of Developing Areas* 23 (October): 621-639.
- Mathews, J.T. 1989. "Redefining Security." *Foreign Affairs* 62 (Spring): 162-177.
- Mathews, J.T. 1991. "The Environment and International Security." Pp. 368-380 in *World Security: Trends and Challenges*, eds. M.T. Klare and D.C. Thomas. New York: St. Martin's Press.
- Maull, H.W. 1989. "Energy and Resources: The Strategic Dimensions." *Survival* 31 (6): 500-518.
- Maurice, C. and C. Smithson. 1984. *The Doomsday Machine*. Stanford, CA: Hoover Institute Press.

- Mazur, L. (ed.). 1994. *Beyond the Numbers: A Reader on Population, Consumption and the Environment*. London: Earthscan.
- McAlpine, J.C. and P. LeDonne. 1993. "The United States Government, Public Participation, and Trade and Environment." Pp. 203-215 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- McDowell, M. 1989. "Development and the Environment in ASEAN." *Pacific Affairs* 62 (3): 307-329.
- McDowell, M. 1993. "Energy Strategies and Environmental Constraints in China's Modernization." Pp. 181-199 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- McKenzie, J.M. (ed.). *Imperialism and the Natural World*. Manchester: Manchester University Press.
- McLaren, D.J. 1989. "View from the North." Pp. 194-197 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- McNicoll, G. 1984. "Consequences of Rapid Population Growth: An Overview and Assessment." *Population and Development Review* 10 (2): 177-240.
- McNicoll, G. (ed.). 1995. *The Earthscan Reader in Population and Development*. London: Earthscan.
- McNicoll, G. and M. Cain (eds.) 1989. *Rural Development and Population: Institutions and Policy*. New York: Oxford University Press.
- Meadows, D.H., D.L. Meadows, J. Randers, and W.W. Behrens, III. 1972. *The Limits to Growth*. New York: Universe Books.
- Meadows, D.H., D.L. Meadows, and J. Randers. 1992. *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. Post Hills, VT: Chelsea Green.
- Meesook, A. 1994. "Women and Environment: Partners in Life and the Role of Women in Sustainable Development." Pp. 61-68 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Merrick, T.W. 1994. "Population Dynamics in Developing Countries." Pp. 79-105 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Merrick, T.W. and Population Reference Bureau Staff. 1989. "World Population in Transition." *Population Bulletin* 41 (December).
- Mertons, W. 1994. *Population and Deforestation in the Humid Tropics*. Policy & Research Papers No. 2. Liège: International Union for the Scientific Study of Population.

- Meyer, W.B. and B.L. Turner II. 1992. "Human Population Growth and Global Land-Use/Cover Change." *Annual Review of Ecological Systems* 23: 39-61.
- Mikesell, R.F. 1992. *Economic Development and the Environment: A Comparison of Sustainable Development with Conventional Development Economics*. London: Mansell Publishing Ltd.
- Miller, M. 1991. *Debt and the Environment: Converging Crises*. New York: United Nations.
- Mink, S.D. 1993. *Poverty, Population, and the Environment*. World Bank Discussion Paper No. 189. Washington, DC: The World Bank.
- Mishan, E.J. 1967. *The Costs of Economic Growth*. London: Staples Press.
- Mishan, E.J. 1977. *The Economic Growth Debate*. London: George Allen and Unwin.
- Mitchell, B. 1994. "Sustainable Development at the Village Level in Bali." *Human Ecology* 22 (March): 189-212.
- Moffett, G. 1994a. *Critical Masses: The Global Population Challenge*. New York: Viking Penguin.
- Moffett, G. 1994b. "The Population Question Revisited." *Wilson Quarterly* 18 (Summer): 54-79.
- Moran, E.F. 1981. *Developing the Amazon*. Bloomington, IN: Indiana University Press.
- Moran, E.F. 1985. "An Assessment of a Decade of Colonization in the Amazon Basin." Pp. 92-102 in *Change in the Amazon Basin: The Frontier After a Decade of Change*, ed. J. Hemming. Manchester: Manchester University Press.
- Moran, E.F. 1993. *Through Amazonian Eyes: The Human Ecology of Amazonian Populations*. Iowa City: Iowa City Press.
- Morgan, W.B. and J.A. Solarz. 1994. "Agricultural Crisis in Sub-Saharan Africa: Development Constraints and Policy Problems." *Geographical Journal* 160 (March): 74-86.
- Morris, R.J. 1993. "A Business Perspective on Trade and the Environment." Pp. 121-132 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Moss, Jr., A.H. 1993. "Free Trade and Environmental Enhancement: Are They Compatible in the Americas?" Pp. 109-120 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Munasinghe, M. 1993a. "Environmental Economics and Biodiversity Management in Developing Countries." *Ambio* 22 (2/3): 126-135.
- Munasinghe, M. 1993b. *Environmental Economics and Sustainable Development*. Washington, DC: The World Bank.
- Munasinghe, M. 1993c. "Environmental Issues and Economic Decisions in Developing Countries." *World Development* 21 (11): 1729-1748.

- Munasinghe, M. and J. McNeely. 1995. "Key Concepts and Terminology of Sustainable Development." Pp. 19-56 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Munasinghe, M. and W. Shearer (eds.) 1995a. *Defining and Measuring Sustainability: The Biogeophysical Foundations*. Washington, DC: The World Bank.
- Munasinghe, M. and W. Shearer. 1995b. "Introduction to the Definition and Measurement of Biogeophysical Sustainability." Pp. xvii-xxxiii in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Muñoz, H. 1993. "The External Trade and Environment Debate: A Summary of the Major Issues." Pp. 227-249 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Muñoz, H. and R. Rosenberg (eds.) 1993. *Difficult Liaison: Trade and the Environment in the Americas*. New Brunswick, NJ: Transaction Books.
- Myers, N. 1987. "Population, Environment and Conflict." *Environmental Conservation* 14 (1): 15-22.
- Myers, N. 1989. "Environment and Security." *Foreign Policy* 74 (Spring): 23-41.
- Myers, N. 1991. *Population, Resources and the Environment: The Critical Challenges*. New York: United Nations Population Fund.
- Myers, N. 1992a. "Population/Environment Linkages: Discontinuities Ahead." *Ambio* 21 (1): 116-118.
- Myers, N. 1992b. "The Question of Linkages in Environment and Development." *BioScience* 43 (5): 302-310.
- Myers, N. 1993a. "Environmental Refugees in a Globally Warmed World." *BioScience* 44 (6): 1-10.
- Myers, N. 1993b. "Population, Environment, and Development." *Environmental Conservation* 20 (3): 1-12.
- Myers, N. 1993c. *Ultimate Security: The Environmental Basis of Political Stability*. New York: W.W. Norton.
- Myers, N. 1994. "Population Growth: Its Contribution to Conflict Over Land and Other Resources." Pp. 101-114 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Myers, N. 1995. "Environmental Unknowns." *Science* 269 (21 July): 358-360.
- Myers, N. and J. L. Simon. 1994. *Scarcity or Abundance? A Debate on the Environment*. New York: W.W. Norton.
- National Conditions Investigation Group, Chinese Academy of Sciences (ed.) 1992. *Survival and Development*. Beijing: Science Press.
- Ness, G.D. and H. Ando. 1984. *The Land is Shrinking: Population Planning in Asia*. Baltimore: The Johns Hopkins University Press.

- Newland, K. 1981a. *Refugees: The New International Politics of Displacement*. Worldwatch Paper No. 43. Washington, DC: Worldwatch Institute.
- Newland, K. 1981b. *Productivity: The New Economic Context*. Worldwatch Paper No. 49. Washington, DC: Worldwatch Institute.
- Noin, D. 1994. "Mortality and Natural Catastrophes in the World." Pp. 363-376 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Nordhaus, W.D. 1982. "How Fast Should We Graze the Global Commons?" *American Economic Review* 72: 242-246.
- Nordhaus, W.D. 1993. "Economic Growth on a Planet under Siege." Pp. 223-242 in *Economic Growth in the World Economy: Symposium 1992*, ed. H. Siebert. Tübingen: J.C.B. Mohr. [Also see "Comment" by G. Klepper, *Ibid*, pp. 243-248.]
- Norgaard, R.B. 1981. "Sociosystem and Ecosystem Coevolution in the Amazon." *Journal of Environmental Economics and Management* 8 (September): 238-254.
- O'Brien, P.J. 1991. "Debt and Sustainable Development in Latin America." Pp. 24-47 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Ofreneo, R.E. 1993. "Japan and the Environmental Degradation of the Philippines." pp. 201-219 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Ohtsuka, R. 1994. "Subsistence Ecology and Carrying Capacity in Two Papua New Guinea Populations." *Journal of Biosocial Science* 26 (July): 395-407.
- Okoth-Ogendo, H.W.O. 1994. "Population and Natural Resource Use." Pp. 53-57 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Olpadwala, P. and G.W. Goldsmith. 1992. "The Sustainability of Privilege: Reflections on the Environment, the Third World City, and Poverty." *World Development* 20 (April): 627-640.
- Olson, S. 1987. "Red Destinies: The Landscape of Environmental Risk in Madagascar." *Human Ecology* 15 (1): 67-89.
- Ominami, C. 1993. "International Trade and the Environment: A View from Chile." Pp. 147-151 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Ophuls, W. 1977. *Ecology and the Politics of Scarcity*. San Francisco: W.H. Freeman.

- Painter, M. 1987. "Unequal Exchange: The Dynamics of Settler Impoverishment and Environmental Destruction in Lowland Bolivia." Pp. 164-191 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Panayotou, T. 1993. *Green Markets: The Economics of Sustainable Development*. Cambridge, MA: Harvard Institute for International Development.
- Panayotou, T. 1994. "Population, Environment, and Development Nexus." Pp. 149-180 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Parkes, A.S. and F. Dennis. 1993. *Backlash: A Biologist Looks at Problems of Population and the Environment*. Cambridge: Parkes Foundation, University of Cambridge.
- Parnwell, M.J.G. 1993. "Environmental Issues and Tourism in Thailand." Pp. 286-302 in *Tourism in South-East Asia*, eds. M. Hitchcock, V.T. King, and M.J.G. Parnwell. London: Routledge.
- Pearce, D. 1985. "Resource Scarcity and Economic Growth in Poor Developing Countries: Missing Links in Simon's Cornucopian Philosophy." *Futures* 17 (October): 440-445.
- Pearce, D. and E.B. Barbier. 1994. *Blueprint 4: Sustaining the Earth*. London: Earthscan.
- Pearce, D., E.B. Barbier, and A. Markandya. 1993. *Blueprint 3: Measuring Sustainable Development*. London: Earthscan.
- Pearce, D., S. Fankhauser, N. Adger, and T. Swanson. 1992. "World Economy, World Environment." *The World Economy* 15 (May): 295-313.
- Pearce, D.W., G.D. Atkinson, and W.R. Dubourg. 1994. "The Economics of Sustainable Development." *Annual Review of Energy and the Environment* 19:457-474.
- Pearson, C.S. 1993. "The Trade and Environment Nexus: What is New Since '72?" Pp. 23-32 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Peet, J. 1992. *Energy and the Ecological Economics of Sustainability*. Washington, DC: Island Press.
- Penz, G.P. 1993. "Colonization of Tribal Lands in Bangladesh and Indonesia: State Rationales, Rights to Land, and Environmental Justice." Pp. 37-72 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Perrings, C. 1987. *Economy and Environment*. Cambridge: Cambridge University Press.
- Pimentel, D. 1992a. "Competition for Land: Development, Food, and Fuel." Pp. 325-348 in *Technologies for a Greenhouse-Constrained Society*, eds. M.A. Kuliasha, A. Zucker, and K.J. Ballew. Boca Raton, FL: Lewis Publishers.

- Pimentel, D. 1992b. "Rural Populations and the Global Environment." *The Rural Sociologist* 12 (October): 12-26.
- Pimentel, D., R. Harmon, M. Pacenza, J. Pecarsky, and M. Pimentel. 1994. "Natural Resources and an Optimum Human Population." *Population and Environment* 15 (May): 347-369.
- Pineda-Ofreneo, R. 1993. "Debt and Environment: The Philippine Experience." Pp. 221-233 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Pirages, D. 1978. *The New Context for International Relations: Global Ecopolitics*. North Scituate, MA: Duxbury Press.
- Pirages, D. 1989. *Global Technopolitics: The International Politics of Technology and Resources*. Pacific Grove, CA: Brooks/Cole.
- Ponting, C. 1990. "Historical Perspectives on Sustainable Development." *Environment* 32 (9): 4-9, 31-33.
- Porter, G. 1995. "Environmental Security as a National Security Issue." *Current History* 94 (May): 218-222.
- Postel, S. 1992. "Denial in the Decisive Decade." Pp. 3-8 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. and C. Flavin. 1991. "Reshaping the Global Economy." Pp. 170-188 in *State of the World 1991*, by L.R. Brown et al. New York: W.W. Norton.
- Preston, S. 1994a. *Population and Environment From Rio to Cairo*. Distinguished Lecture Series on Population and Development. Liège: International Union for the Scientific Study of Population.
- Preston, S. 1994b. "Population and the Environment: The Scientific Evidence." Pp. 85-92 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Pronk, J. and M. El Haq. 1992. *Sustainable Development: From Concept to Action*. The Hague Report. New York: United Nations Development Programme.
- Puntasen, A., S. Siriprachai, and C. Punyasavatsut. 1993. "The Political Economy of Eucalyptus: Business, Bureaucracy, and the Thai Government." Pp. 155-167 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Qu Geping and Li Jinchang. 1994. *Population and the Environment in China*, translated by Jiang Baozhong and Gu Ran, edited by R.B. Boardman. Boulder, CO: Lynne Rienner.
- Ragin, C.C. and Y.W. Bradshaw. 1992. "International Economic Dependence and Human Misery, 1938-1980." *Sociological Perspectives* 35 (2): 217-247.

- Ramakrishnan, P.S. 1995. "Currencies for Measuring Sustainability: Case Studies from Asian Highlands." Pp. 193-206 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Randall, S. 1994. "Are Pastoralists Demographically Different from Sedentary Agriculturalists?" Pp. 325-347 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Reardon, T. and S.A. Vosti. 1995. "Links Between Rural Poverty and the Environment in Developing Countries: Asset Categories and Investment Poverty." *World Development* 23 (9): 1495-1506.
- Redclift, M. 1984. *Development and the Environmental Crisis: Red or Green Alternatives?* London: Methuen.
- Redclift, M. 1987. *Sustainable Development: Exploring the Contradictions*. London: Methuen.
- Redclift, M. 1988. "Sustainable Development and the Market: A Framework for Analysis." *Futures* (December): 635-650.
- Redclift, M. 1989. "The Environmental Consequences of Latin America's Agricultural Development: Some Thoughts on the Brundtland Commission Report." *World Development* 17 (3): 365-377.
- Redclift, M. and D. Goodman. 1991. "Introduction." Pp. 1-23 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Reed, D. (ed.). 1992. *Structural Adjustment and the Environment*. Boulder, CO: Westview Press.
- Rees, C.P. 1986. "Environmental Policies and Economic Development." *Asian Development Review* 4 (1): 63-77.
- Rees, W.E. 1991. "The Ecology of Sustainable Development." *The Ecologist* 20 (1): 18-24.
- Reid, D. 1995. *Sustainable Development: An Introductory Guide*. London: Earthscan.
- Renner, M. 1989. *National Security: The Economic and Environmental Dimensions*. Worldwatch Paper No. 89. Washington, DC: Worldwatch Institute.
- Renner, M. 1990. *Swords Into Plowshares: Converting to a Peace Economy*. Worldwatch Paper No. 96. Washington, DC: Worldwatch Institute.
- Renner, M. 1991. *Jobs in a Sustainable Economy*. Worldwatch Paper No. 104. Washington, DC: Worldwatch Institute.
- Renner, M. 1993. *Critical Juncture: The Future of Peacekeeping*. Worldwatch Paper No. 114. Washington, DC: Worldwatch Institute.
- Renner, M. 1994. *Budgeting for Disarmament: The Costs of War and Peace*. Worldwatch Paper No. 122. Washington, DC: Worldwatch Institute.

- Renner, M. 1995. "Budgeting for Disarmament." Pp. 150-169 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Repetto, R. 1993. "Complementarities between Trade and Environment Policies." Pp. 237-246 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Rigg, J. 1991. *Southeast Asia: A Region in Transition*. London: Unwin Hyman.
- Rigg, J. 1993. "Forests and Farmers, Land and Livelihoods, Changing Resource Realities in Thailand." *Global Ecology and Biogeography Letters* 3: 277-289.
- Romm, J.J. 1993. *Defining National Security: The Nonmilitary Aspects*. New York: Council on Foreign Relations Press.
- Roberts, J.T. 1994. "Brazil: Crisis and the Environment." *Hemisphere* 6 (1): 26-30.
- Røpke, I. 1994. "Trade, Development and Sustainability --- A Critical Assessment of the 'Free Trade Regime'." *Ecological Economics* 9 (January): 13-22.
- Rosenblum, M. and D. Williamson. 1990. *Squandering Eden: Africa at the Edge*. London: Paladin Books.
- Rudel, T.K. 1991. "Relationships between Population and Environment in Rural Areas of Developing Countries." *Population Bulletin of the United Nations* 31/32 (1): 52-69.
- Rumani, K.V., P. Hills, and G. George (eds.). 1992. *Burning Questions: Environmental Limits to Energy Growth in Asian-Pacific Countries During the 1990s*. Kuala Lumpur: Asian and Pacific Development Centre.
- Runge, C.F. 1986. "Common Property and Collective Action in Economic Development." *World Development* 14 (5): 623-635.
- Runge, C.F., with F. Ortalo-Magne and P. Vande Kamp. 1994. *Freer Trade, Protected Environment: Balancing Trade Liberalization and Environmental Interests*. New York: Council on Foreign Relations Press.
- Rush, J. 1991. *The Last Tree: Reclaiming the Environment in Tropical Asia*. Boulder, CO: Westview Press.
- Ryan, M. and C. Flavin. 1995. "Facing China's Limits." Pp. 113-131 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Sachs, I. 1980. "Culture, Ecology, and Development: Redefining Planning Approaches." Pp. 319-343 in *Human Behavior and Environment: Advances in Theory and Research*. Vol. 4: *Environment and Culture*, eds. I. Altman, A. Rapaport, and J.F. Wohlwill. New York: Plenum.
- Sachs, I. 1987. *Development and Planning*, trans. P. Fawcett. Cambridge: Cambridge University Press.
- Sachs, W. 1989. "The Virtue of Enoughness." *New Perspectives Quarterly* 10 (1): 16-20.
- Sagasti, F.R. and M.E. Colby. 1993. "Eco-Development and Perspectives on Global Change from Developing Countries." Pp. 175-203 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.

- Sanderson, S.E. 1993. "International Trade, Natural Resources, and Conservation of the Environment in Latin America." Pp. 53-78 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Sarkesian, S.C. 1989. "The Demographic Component of Strategy." *Survival* 31 (6): 549-564.
- Schmink, M. and C. Wood. 1987. "The Political Ecology of Amazonia." Pp. 38-57 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Schoenbaum, T.J. 1992. "Free International Trade and Protection of the Environment: Irreconcilable Conflict?" *American Journal of International Law* 86 (October): 700-727. [Also see E.M. Weiss, "Environment and Trade as Partners in Sustainable Development: A Commentary." *Ibid*, pp. 72d8-735.]
- Sen, G. 1994. "Women, Poverty and Population: Issues for the Concerned Environmentalist." Pp. 67-86 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Serbin, A., A. De Lisio, and E. Ortiz. 1993. "The Environmental Impact of International Trade and Industry: Reflections on Latin America and the Caribbean." Pp. 127-145 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Sersale di Cerisano, R.C. 1993. "The Environment and International Agricultural Trade: The Implications of Protectionism." Pp. 79-100 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Shafik, N. 1994. "Economic Development and Environmental Quality: An Econometric Analysis." *Oxford Economic Papers* 46 (October): 757-773.
- Shaw, R.P. 1992. "The Impact of Population Growth on Environment: The Debate Heats Up." *Environmental Impact Assessment Review* 12 (½): 11-36.
- Shin, D.-H. 1993. "Economic Growth and Environmental Problems in South Korea: The Role of the Government." Pp. 235-256 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Silver, C.S. and R.S. DeFries. 1990. *One Earth, One Future: Our Changing Global Environment*. Washington, DC: National Academy Press.
- Simon, J.L. 1981. *The Ultimate Resource*. Princeton, NJ: Princeton University Press.
- Simon, J.L. 1986. *Theory of Population and Economic Growth*. New York: Basil Blackwell.
- Simonis, U.E. 1990. *Beyond Growth: Elements of Sustainable Development*. Berlin: Edition Sigma.

- Skolnikoff, E.B. 1993. *The Elusive Transformation: Science, Technology, and the Evolution of International Politics*. Princeton, NJ: Princeton University Press.
- Smil, V. 1984. *The Bad Earth: Environmental Degradation in China*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1987. "A Perspective on Global Environmental Crises." *Futures* 19 (June): 240-253.
- Smil, V. 1989. "China's Environmental Morass." *Current History* 88 (September): 277-280, 287-288.
- Smil, V. 1992. "China's Environment in the 1990s: Some Critical Challenges." *Ambio* 21 (6): 431-436.
- Smil, V. 1993. *China's Environmental Crisis: An Inquiry into the Limits of National Development*. Armonk, NY: M.E. Sharpe.
- Smith, N. 1980. "Anthrosols and Human Carrying Capacity in Amazonia." *Annals of the Association of American Geographers* 70 (4): 553-566.
- Smith, P.M. and K. Warr (eds.) 1991. *Global Environmental Issues*. London: Hodder and Stoughton.
- Socolow, R., C. Andrews, F. Berkhout, and V. Thomas (eds.) 1994. *Industrial Ecology and Global Change*. Cambridge: Cambridge University Press.
- Soemarwoto, O. 1991. "Human Ecology in Indonesia: The Search for Sustainability in Development." Pp. 212-235 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Southgate, D. and M. Basterrechea. 1992. "Population Growth, Public Policy, and Resource Degradation: The Case of Guatemala." *Ambio* 21 (7): 460-464.
- Srinivasan, T.N. 1988. "Population Growth and Economic Development." *Journal of Policy Modeling* 10 (1): 7-28.
- Starke, L. 1990. *Signs of Hope: Working Towards Our Common Future*. New York: Oxford University Press.
- Steininger, K. 1994. "Reconciling Trade and Environment: Towards a Comparative Advantage for Long-Term Policy Goals." *Ecological Economics* 9 (January): 23-42.
- Stevens, C. 1993a. "The Environmental Effects of Trade." *The World Economy* 16 (4): 439-451.
- Stevens, C. 1993b. "Organization for Economic Cooperation and Development Framework for the Discussion of Trade and Environment Concerns." Pp. 161-166 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Stevens, C. 1993c. "The Organization for Economic Cooperation and Development and the Re-Emergence of the Trade and Environment Debate." Pp. 83-92 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.

- Stockdale, J. 1989. "Pro-Growth, Limits to Growth, and a Sustainable Development Synthesis." *Society and Natural Resources* 2 (3): 163-176.
- Stone, R.D. 1992. *The Nature of Development: A Report from the Rural Tropics on the Quest for Sustainable Economic Growth*. New York: Knopf.
- Stonich, S.C. 1989. "The Dynamics of Social Processes and Environmental Destruction: A Central American Case Study." *Population and Development Review* 15 (June): 269-296.
- Stonich, S.C. 1991. "The Promotion of Nontraditional Exports in Honduras: Issues of Equity, Environment, and Natural Resource Management." *Development and Change* 22 (4): 725-755.
- Stonich, S.C. 1992. "Struggling with Honduran Poverty: The Environmental Consequences of Natural Resource Based Development and Rural Transformation." *World Development* 20 (March): 385-399.
- Stonich, S.C. 1993. *"I am Destroying the Land!": The Political Ecology of Poverty and Environmental Destruction in Honduras*. Boulder, CO: Westview Press.
- Strong, M. 1992. "Required Global Changes: Close Linkages between Environment and Development." Pp. 11-24 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Sussangkarn, C. 1994. "Dynamic Balance for Social Changes and Environmentally Sound and Sustainable Development." Pp. 49-53 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Swanson, T.M. and E.B. Barbier (eds.). 1992. *Economics for the Wilds: Wildfire, Wildlands, Diversity and Development*. London: Earthscan.
- Tahvonen, O. and J. Kuuluvainen. 1993. "Economic Growth, Pollution and Renewable Resources." *Journal of Environmental Economics and Management* 24 (March): 101-118.
- Tainter, J.A. 1988. *The Collapse of Complex Societies*. Cambridge: Oxford University Press.
- Taylor, L. 1993. "The World Bank and the Environment: The World Development Report 1992." *World Development* 21 (5): 869-881.
- Taylor, P. and F.H. Buttell. 1992. "How Do We Know We Have Global Environmental Problems?" *Geoforum* 23: 405-416.
- Teitelbaum, M. 1992/93. "The Population Threat." *Foreign Affairs* 72 (Winter): 63-78.

- Teitelbaum, M. and S.S. Russell. 1994. "International Migration, Fertility, and Development." Pp. 229-252 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Tham, C. 1992. "Poverty, Environment and Development." Pp. 25-37 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Tiffen, M. and M. Mortimore. 1994. "Malthus Controverted: The Role of Capital and Technology in Growth and Environmental Recovery in Kenya." *World Development* 22 (7): 997-1010.
- Timberlake, L. 1985. *Africa in Crisis: The Causes, the Cures of Environmental Bankruptcy*. London: Earthscan.
- Tinbergen, J. and R. Huetting. 1992. "GNP and Market Prices: Wrong Signals for Sustainable Economic Success That Mask Environmental Destruction." Pp. 52-62 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Tisdell, C. 1988. "Sustainable Development: Differing Perspectives of Ecologists and Economists, and Relevance to LDCs." *World Development* 16 (3): 373-384.
- Tisdell, C. 1990. *Natural Resources, Growth, and Development: Economics, Ecology, and Resource-Scarcity*. Westport, CT: Praeger.
- Tolba, M.K. 1987. *Sustainable Development: Constraints and Opportunities*. London: Butterworth.
- Tolba, M.K. 1995. "Towards a Sustainable Development." *Ambio* 24 (1): 66-67.
- Tolba, M.K. and O.A. El-Kholy, in association with E. El-Hinnawi, M.W. Holdgate, D.F. McMichael, and R.E. Munn (eds.). 1992. *The World Environment 1972-1992*. London: Chapman and Hall.
- Tomeh, G. 1980. "Interdependence: A View from the Third World." Pp. 359-384 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Tucker, S.K. 1992. "Equity and the Environment in the Promotion of Nontraditional Agricultural Exports." Pp. 109-141 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- Tulchin, J.S. and A.I. Rudman. (eds.) 1991. *Economic Development and Environmental Protection in Latin America*. Boulder, CO: Lynne Rienner.
- United Nations, Department of Economic and Social Information and Policy Analysis. 1993. "Expert Group Meeting on Population, Environment and Development." *Population Bulletin of the United Nations*, No. 34/35: 19-34.

- United Nations Secretariat. 1991. "Relationships between Population and Environment in Rural Areas of Developing Countries." *Population Bulletin of the United Nations*, No. 31/32: 52-69.
- U.S. National Academy of Sciences & [British] Royal Society. 1992. *Population Growth, Resource Consumption, and a Sustainable World*. Washington, DC: National Academy Press.
- van de Walle, D. 1985. "Population Growth and Poverty: Another Look at the Indian Time Series Data." *Journal of Development Studies* 21 (April): 429-439.
- van den Bergh, J.C.J.M. and J. van der Straaten. 1994a. "Historical and Future Models of Economic Development and Natural Environment." Pp. 209-234 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- van den Bergh, J.C.J.M. and J. van der Straaten. 1994b. "The Significance of Sustainable Development for Ideas, Tools, and Policy." Pp. 1-22 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- van den Bergh, J.C.J.M. and J. van der Straaten. (eds.) 1994c. *Toward Sustainable Development: Concepts, Methods, and Policy*. Washington, DC: Island Press.
- Varma, A., J. Souba, A. Faiz, and K.C. Sinha. 1992. "Environmental Considerations of Land Transport in Developing Countries: Part I." *Transport Review* 12 (2): 101-113.
- Varma, A., J. Souba, A. Faiz, and K.C. Sinha. 1992. "Environmental Considerations of Land Transport in Developing Countries: Part II." *Transport Review* 12 (3): 187-198.
- Vaughn, G.F. 1994. "The Geography of Resource Economics." *Land Economics* 70 (November): 515-519.
- Vermeer, E.B. 1986. "Agriculture and Ecology in China." Pp. 143-164 in *China in the 1980s --- And Beyond*, eds. B. Arendrup, C.B. Thøgersen, and A. Wedell-Wedellsborg. London: Curzon Press.
- Vitousek, P.M. 1992. "Global Environmental Change: An Introduction." *Annual Review of Ecological Systems* 23: 1-14.
- Vitousek, P.M. and J. Lubchenco. 1995. "Limits to Sustainable Use of Resources: From Local Effects to Global Change." Pp. 57-64 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- von Moltke, K. 1993a. "A European Perspective on Trade and the Environment." Pp. 93-108 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.

- von Moltke, K. 1993b. "Environmental Protection and Its Effects on Competitiveness." Pp. 5-19 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.
- Wadia, A.B. 1994. "Role of Women in Population, Sustainable Development and Environment." Pp. 54-60 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Ward, J.R. 1993. "Environmental Strategies for Agricultural Trade." Pp. 247-256 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Wathen, T. 1993. "A Guide to Trade and the Environment." Pp. 3-21 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Weiner, M. 1992. "Security, Stability, and International Migration." *International Security* 17 (3): 91-126.
- Weiss, E.B. 1992. "Environment and Trade as Partners in Sustainable Development: A Commentary." *American Journal of International Law* 86 (October): 728-735.
- Western, S. 1988. "Carrying Capacity, Population Growth and Sustainable Development: A Case Study from the Philippines." *Journal of Environmental Management* 27 (4): 347-367.
- Westing, A.H. (ed.) 1988. *Cultural Norms, War and the Environment*. Oxford: Oxford University Press.
- White, R.R. 1993. *North, South, and the Environmental Crisis*. Toronto: University of Toronto Press.
- Wilkinson, R.G. 1973. *Poverty and Progress: An Ecological Perspective on Economic Development*. New York: Praeger.
- Williams, G. 1992. "The World Bank, Population Control and The African Environment." *African Sociological Review* 4 (April): 2-29.
- Wimberley, R.C. 1993. "Policy Perspectives on Social, Agricultural, and Rural Sustainability." *Rural Sociology* 58 (1): 1-29.
- Wimberley, D.W. and R. Bello. 1992. "Effects of Foreign Investment, Exports, and Economic Growth on Third World Food Consumption." *Social Forces* 70 (June): 895-921.
- Winslow, D. 1993. "Mining and the Environment in New Caledonia: The Case of Thio." Pp. 111-134 in *Asia's Environmental Crisis*, ed. M.C. Howard. Boulder, CO: Westview Press.
- Winter-Nelson, A. 1995. "Natural Resources, National Income, and Economic Growth in Africa." *World Development* 23 (9): 1507-1519.

- Wirth, D.A. 1989. "Climate Chaos." *Foreign Policy* 74 (Spring): 3-22.
- Wirth, D.A. 1993. "The International Trade Regime and the Municipal Law of Federal States: How Close a Fit?" Pp. 33-43 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Woodhouse, E.J. 1972. "Re-Visioning the Future of the Third World: An Ecological Perspective on Development." *World Politics* 25 (1): 1-33.
- Woodwell, G.M. (ed.) 1990. *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*. Cambridge: Cambridge University Press.
- World Bank. 1992. *World Development Report 1992: Development and the Environment*. New York: Oxford University Press.
- World Commission on Environment and Development. 1987. *Our Common Future*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1992. "Dimensions of Sustainable Development." Pp. 1-12 in *World Resources 1992-93*. New York: Oxford University Press.
- Young, J.E. 1993. *Global Network: Computers in a Sustainable Society*. Worldwatch Paper No. 115. Washington, DC: Worldwatch Institute.
- Young, M.D. 1994. "Ecologically-Accelerated Trade Liberalisation: A Set of Disciplines for Environment and Trade Agreements." *Ecological Economics* 9 (January): 43-51.
- Zaba, B. and J. Clarke (eds.). 1994a. *Environment and Population Change*. Liège, Belgium: Ordina Publications.
- Zaba, B. and J. Clarke. 1994b. "Introduction: Current Directions in Population-Environment Research." Pp. 9-43 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Zaelke, D., P. Orbuch, and R.F. Housman (eds.). 1993. *Trade and the Environment: Law, Economics, and Policy*. Washington, DC: Island Press.
- Zhao Songqiao. 1994. *Geography of China: Environment, Resources, Population and Development*. New York: John Wiley and Sons.
- Zimmerman, A.H. 1993. "International Trade in Forestry Resources and Sustainable Development." pp. 101-107 in *Difficult Liaison: Trade and the Environment in the Americas*, eds. H. Muñoz and R. Rosenberg. New Brunswick, NJ: Transaction Books.

D. Measurement and Monitoring Issues

- Ahmad, A. 1993. "Environmental Impact Assessment in the Himalayas: An Ecosystem Approach." *Ambio* 22 (1): 4-9.
- Allegretti, M.A. 1992. "Reconciling People and Land: The Prospects for Sustainable Extraction in the Amazon." Pp. 249-254 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Arheimer, B. and H.B. Wittgren. 1994. "Modelling the Effects of Wetlands on Regional Nitrogen Transport." *Ambio* 23 (6): 378-386.
- Arndt, H.W. 1993. "Sustainable Development and the Discount Rate." *Economic Development and Cultural Change* 41 (April): 651-661.
- Azzoni, C.R. and J.Y. Isai. 1994. "Estimating the Costs of Environmental Protection in Brazil." *Ecological Economics* 11 (2): 127-133.
- Barbier, E.B. 1994. "Valuing Environmental Functions: Tropical Wetlands." *Land Economics* 70 (May): 155-173.
- Barney, G.O. et al. 1980. *The Global 2000 Report to the President*. Vol. II: *The Technical Report*. Washington, DC: U.S. Government Printing Office.
- Bartelmus, P. 1994. "Green Accounting for a National Strategy of Sustainable Development --- The Case of Papua New Guinea." *Ambio* 23 (8): 509-514.
- Blamey, R. and M. Common. 1994. "Sustainability and the Limits to Pseudo Market Valuation." Pp. 165-205 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Braden, J.B. and C.D. Kolsstad (eds.). 1991. *Measuring the Demand for Environmental Quality*. New York: Elsevier.
- Brown, B.J., M.E. Hanson, D.M. Liverman, and R.W. Meredith, Jr. 1988. "Global Sustainability: Toward Definition." *Environmental Management* 11: 713-719.
- Brown, Jr., G.M. and B. Field. 1979. "The Adequacy of Measures for Signalling the Scarcity of Natural Resources." Pp. 218-248 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Brown, L.R., C. Flavin, and H. Kane. 1992. *Vital Signs 1992: The Trends That Are Shaping our Future*. New York: W.W. Norton.
- Brown, L.R., H. Kane, and E. Ayres. 1993. *Vital Signs 1993-1994: The Trends That Are Shaping Our Future*. New York: W.W. Norton.
- Brown, L.R., H. Kane, and D.M. Roodman. 1994. *Vital Signs 1994: The Trends That Are Shaping Our Future*. New York: W.W. Norton.
- Brown, L.R., N. Lenssen, and H. Kane. 1995. *Vital Signs 1995: The Trends That Are Shaping Our Future*. New York: W.W. Norton.

- Burch, Jr., W.R. and D.R. DeLuca. 1984. *Measuring the Social Impact of Natural Resource Policies*. Albuquerque: University of New Mexico Press.
- Cairns, J., Jr., and B.R. Hiederlehner. 1989. "Adaptation and Resistance of Ecosystems to Stress: A Major Knowledge Gap in Understanding Anthropogenic Perturbations." *Speculations in Science and Technology* 12 (1): 23-30.
- Campbell, C.L., W.W. Heck, D.A. Neher, M.J. Munster, and D.L. Hoag. 1995. "Biophysical Measurement of the Sustainability of Temperate Agriculture." Pp. 251-273 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by D.W. Anderson, *Ibid*, pp. 274-276.]
- Carley, M.J. and E.S. Buestelo. 1984. *Social Impact Assessment and Monitoring: A Guide to the Literature*. Boulder, CO: Westview Press.
- Carpenter, R.A. 1995. "Limitations in Measuring Sustainability." Pp. 431-440 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Carter, G.C. and B.I. Diamondstone. 1990. *Directions for Internationally Compatible Environmental Data*. New York: Chemisphere Publishing Corporation.
- Costanza, R., S.O. Funtowicz, and J.R. Ravetz. 1992. "Assessing and Communicating Data Quality in Policy Relevant Research." *Environmental Management* 16: 121-131.
- Dasgupta, P. and K.-G. Mäler. 1989. "Social Cost Benefit Analysis and Soil Erosion." Pp. 221-259 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Dietz, T. and L. Kalof. 1992. "Environmentalism Among Nation States." *Social Indicators Research* 26: 353-366.
- Ditz, D., D. Banks, and J. Ranganathan (eds.). 1995. *Green Ledgers: Case Studies in Corporate Environmental Accounting*. Washington, DC: World Resources Institute.
- Dixon, J.A. and M. Hufschmidt (eds.). 1986. *Economic Valuation Techniques for the Environment*. Baltimore: Johns Hopkins University Press.
- Documents. 1992. "World Survey on Environmental Management Practice." *Water Resources Journal*, No. 174 (September): 1-11.
- Downing, J.A. 1992. "Comparing Apples and Oranges: Methods of Interecosystem Comparison." Pp. 24-45 in *Comparative Analysis of Ecosystems: Patterns, Mechanisms, and Theories*, eds. J.J. Cole, G.M. Lovell, and E.G. Findlay. New York: Springer-Verlag.
- Downs, A. 1972. "Up and Down with Ecology: The Issue Attention Cycle." *The Public Interest* (Summer): 38-50.

- Dunlap, R.E., G.H. Gallup, Jr., and A.M. Gallup. 1993. "Of Global Concern: The Health of the Planet Survey." *Environment* 35 (9) 7-15, 33-39.
- Eberstadt, N. 1995. "Appendix: Limits of Statistical Uncertainty --- The Case of Population, Food, and Income." Pp. 455-459 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Eisner, R. 1988. "Extended Accounts for National Income and Product." *Journal of Economic Literature* 24 (4): 1611-1684.
- El Sarafy, S. 1991. "The Environment as Capital." Pp. 168-175 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- El Sarafy, S. 1992. "Sustainability, Income Measurement, and Growth." Pp. 63-79 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- El Sarafy, S. and E. Lutz. 1989. "Environmental and Natural Resource Accounting." Pp. 23-38 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Faber, M. and J.L.R. Proops. 1991. "National Accounting, Time and the Environment: A Neo-Austrian Approach." Pp. 214-233 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Fisher, A.C. 1979. "Measures of Natural Resource Scarcity." Pp. 249-275 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Fisher, A.C. 1981. *Resource and Environmental Economics*. Cambridge: Cambridge University Press.
- Fontes, J., J.P. Gastellu-Etchegorry, O. Amram, and G. Flouzat. 1995. "A Global Phenological Model of the African Continent." *Ambio* 24 (5): 297-303.
- Food and Agriculture Organization of the United Nations (FAO). 1982. *Tropical Forest Resources*. FAO Forestry Paper No. 30. Rome: FAO.
- Food and Agriculture Organization of the United Nations (FAO). 1993. *Forest Resources Assessment 1990: Tropical Countries*. FAO Forestry Paper No. 112. Rome: FAO.
- Fox, E.A. 1989. "Environmental Quality in a New System of Social Accounts." Pp. 189-201 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Funtowicz, S.O. and J.R. Ravetz. 1991. "A New Scientific Methodology for Global Environmental Issues." Pp. 137-152 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Gallopín, G.C. and S. Öberg. 1992. "Quality of Life." Pp. 227-238 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Gaston, K.J. 1994. "Biodiversity --- Measurement." *Progress in Physical Geography* 18 (4): 565-574.
- Gibbs, J.P. and D.L. Poston, Jr. 1975. "The Division of Labor: Conceptualization and Related Measures." *Social Forces* 53: 468-476.
- Gilbert, A.J. and J.F. Feenstra. 1994. "A Sustainability Indicator for the Dutch Environmental Policy Theme 'Diffusion': Cadmium Accumulation in the Soil." *Ecological Economics* 9 (April): 253-265.
- Glickman, T.S. 1994. "Measuring Environmental Equity with Geographical Information Systems." *Resources*, No. 116 (Summer): 2-6.
- Goudie, A. 1990. *The Human Impact on the Natural Environment*. Third Edition. Cambridge, MA: The MIT Press.
- Goul Thomsen, M. and C. Nellemann. 1994. "Isolation of Natural Factors Affecting Crown Density and Crown Color in Coniferous Forest: Implications for Monitoring of Forest Decline." *Ambio* 23 (4/5): 251-254.
- Greenland, D. 1994. "Use of Satellite-Based Sensing in Land Surface Climatology." *Progress in Physical Geography* 18 (1): 1-15.
- Gunn, J.D. and J. W. Grzymala-Busse. 1994. "Global Temperature Stability by Rule Induction: An Interdisciplinary Bridge." *Human Ecology* 22 (March): 59-81.
- Hall, D.C. and J.V. Hall. 1984. "Concepts and Measures of Natural Resource Scarcity with a Summary of Recent Trends." *Journal of Environmental Economics and Management* 11 (December): 363-379.
- Hannah, L., D. Lohse, C. Hutchinson, J.L. Carr, and A. Lankranie. 1994. "A Preliminary Inventory of Human Disturbance of World Ecosystems." *Ambio* 23 (4/5): 246-250.
- Hannon, B. 1991. "Accounting in Ecological Systems." Pp. 234-252 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Hauchler, I. and P.M. Kennedy (eds.). 1994. *Global Trends: The World Almanac of Development and Peace*. New York: The Continuum Publishing Company.
- Hayden, F.G. 1991. "Instrumental Valuation Indicators for Natural Resources and Ecosystems." *Journal of Economic Issues* 25 (December): 917-935.
- Hoare, A.G. 1993. "A Note on Environmental Indices: Conceptual Developments and Empirical Applications." *Global Environmental Change* 3 (4): 357-368.
- Howarth, R.B. and R.B. Norgaard. 1992. "Environmental Valuation Under Sustainability." *American Economic Review* 82 (May): 473-477.

- Huetting, R. 1991. "Correcting National Income for Environmental Losses: A Practical Solution for a Theoretical Dilemma." Pp. 194-213 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Inhaber, H. 1976. *Environmental Indices*. New York: Wiley Interscience.
- International Institute for Environment and Development and World Resources Institute. 1987. *World Resources 1987*. New York: Basic Books.
- International Meetings on More Effective Development Indicators. 1990. *Redefining Wealth and Progress: New Ways to Measure Economic, Social and Environmental Change. The Caracas Report on Alternative Development Indicators*. New York: The Bootstrap Press.
- Izac, A-M.N and M.J. Swift. 1994. "On Agricultural Sustainability and Its Measurement in Small-Scale Farming in Sub-Saharan Africa." *Ecological Economics* 11 (2): 105-125.
- Jensen, J. et al. 1989. "Remote Sensing." Pp. 746-775 in *Geography in America*, eds. G.L. Gaile and C.J. Willmott. Columbus, OH: Merrill.
- Johansson, P.-O. 1991. "Valuing Environmental Damage." Pp. 111-136 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Kopp, R.J. and V.K. Smith (eds.). 1993. *Valuing Natural Assets: The Economics of Natural Resource Damage Assessment*. Washington, DC: Resources for the Future.
- Kramer, R., R. Healy, and R. Mendelsohn. 1992. "Forest Valuation." Pp. 237-267 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Krupnick, A.J. 1992. "Using Benefit-Cost Analysis to Prioritize Environment Problems." *Resources* 106 (Winter): 34-37.
- Kuik, O. and H. Verbruggen (eds.) 1991. *In Search of Indicators for Sustainable Development*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Kurian, G.T. (ed.) 1989. *Geo-Data: The World Geographical Encyclopedia*. Second Edition. Detroit: Gale Research, Inc.
- Lacy, C. and D. Longman. 1993. "The Press and Public Access to the Environment and Development Debate." *Sociological Review* 41 (2): 207-243.
- LaMay, C.L. and E.E. Dennis (eds.). 1991. *Media and the Environment*. Washington, DC: Island Press.
- Leitmann, J. 1993. "Rapid Urban Environmental Assessment: Toward Environmental Management in Cities of the Developing World." *Impact Assessment* 11 (3): 225-260.
- Lowe, P. and D. Morrison. 1984. "Bad News or Good News: Environmental Politics and the Mass Media." *Sociological Review* 32 (1): 75-90.

- Liverman, D.M., M.E. Hanson, B.J. Brown, and R.W. Meredith, Jr. 1988. "Global Sustainability: Toward Measurement." *Environmental Management* 12 (2): 133-143.
- Ludwig, J.A. and J.F. Reynolds. 1988. *Statistical Ecology*. New York: Wiley.
- Lusigi, W.J. 1995. "Measuring Sustainability in Tropical Rangelands: A Case Study from Northern Kenya." Pp. 277-303 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by L.M. Talbot, *Ibid*, pp. 304-307.]
- Lutz, E. (ed.) 1993. *Toward Improved Accounting for the Environment*. Washington, DC: The World Bank.
- Lutz, E. and M. Munasinghe. 1991. "Accounting for the Environment." *Finance and Development* 28 (March): 19-21.
- Lutz, W. 1994. "Population and Environment --- What Do We Need More Urgently: Better Data, Better Models, or Better Questions?" Pp. 47-62 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- MacNeill, J., P. Winsemius, and T. Yakushiji. 1991. *Beyond Interdependence: The Meshing of the World's Economy and Ecology*. New York: Oxford University Press.
- Magurran, A.E. 1988. *Ecological Diversity and Its Measurement*. Princeton, NJ: Princeton University Press.
- Maxwell, T. and R. Costanza. 1994. "Spatial Ecosystem Modeling in a Distributed Computational Framework." Pp. 111-138 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- McAllister, D.M. 1986. *Evaluation in Environmental Planning: Assessing Environmental, Social, Economic, and Political Tradeoffs*. Cambridge, MA: The MIT Press.
- McCloskey, J.M. and H. Spaulding. 1989. "A Reconnaissance-Level Inventory of the Amount of Wilderness Remaining in the World." *Ambio* 18: 221-227.
- Mikesell, R. 1992. "Project Evaluation and Sustainable Development." Pp. 80-89 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Misch, A. 1994. "Assessing Environmental Health Risks." Pp. 117-136 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Mitchell, B. 1989. *Geography and Resource Analysis*. Second edition. New York: Longman.
- Mitchell, R.C. and R.T. Carson. 1989. *Using Surveys to Value Public Goods: The Contingent Evaluation Method*. Washington, DC: Resources for the Future.

- Navrud, S. and E.D. Mungatana." 1994. "Environmental Valuation in Developing Countries: The Recreational Value of Wildlife Viewing." *Ecological Economics* 11 (2): 1135-1151.
- Nijkamp, P. 1989. "Multicriteria Analysis: A Decision Support System for Sustainable Environmental Management." Pp. 203-220 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Njoka, B. 1991. "Modelling for Population and Sustainable Development in Kenya." Pp. 126-136 in *Modelling for Population and Sustainable Development*, eds. A. Gilbert and L. Braat. New York: Routledge.
- Norgaard, R.B. and R.B. Howarth. 1991. "Sustainability and Discounting the Future." Pp. 88-101 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Peakall, D.B. 1992. "A Practical Basis for Using Physiological Indicators in Environmental Assessment." *Ambio* 21 (6): 437-438.
- Pearce, D.W. 1994. "The Great Environmental Values Debate." *Environment and Planning A* 26 (September): 1329-1338.
- Pearce, D.W. and J.J. Warford. 1993. *World Without End: Economics, Environment, and Sustainable Development*. New York: Oxford University Press.
- Peskin, H.M. 1991. "Alternative Environmental and Resource Accounting Approaches." Pp. 176-193 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Peters, R.H. 1991. *A Critique for Ecology*. Cambridge: Cambridge University Press.
- Pezzey, J. 1992. *Sustainable Development Concepts: An Economic Analysis*. World Bank Environment Paper Number 2. Washington, DC: The World Bank.
- Ponting, C. 1991. *A Green History of the World*. London: Sinclair Stephenson.
- Pollack, H.N. and D.S. Chapman. 1993. "Underground Records of Changing Climate." *Scientific American* 268 (6): 16-22.
- Postel, S. 1990. "Toward a New 'Eco'-Nomics." *World Watch* 3 (September/October): 20-28.
- Ravallion, M. and D. van de Walle. 1991. "Quantifying Absolute Poverty in the Developing World." *Review of Income and Wealth* 37 (4): 345-361.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Routledge.
- Regier, H.A., S.A. Bocking, and HF Henderson. 1995. "Sustainability of Temperate Zone Fisheries: Biophysical Foundations for Its Definition and Measurement." Pp. 335-354 in *Defining and Measuring Sustainability: The*

- Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Reining, P. 1978. *Handbook of Desertification Indicators*. Washington, DC: American Association for the Advancement of Science.
- Repetto, R. 1989a. "Balance-Sheet Erosion --- How to Account for the Loss of Natural Resources." *International Environmental Affairs* 1 (2): 103-137.
- Repetto, R. 1989b. "Wasting Assets: The Need for Natural Resource Accounting." *Technology Review* (January): 38-44.
- Repetto, R. 1992. "Accounting for Environmental Assets." *Scientific American* 266 (June): 64-70.
- Repetto, R., W. Magrath, M. Wells, C. Beer, and F. Rossini. 1989. *Wasting Assets: Natural Resources in the National Income Accounts*. Washington, DC: World Resources Institute.
- Rhind, D. 1991. "Geographical Information Systems and Environmental Problems." *International Social Science Journal* 130 (November): 649-668.
- Rideout, V.C. 1980. "Modelling Studies of Socio-Economic-Resource Systems." Pp. 425-454 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Risser, P.G. 1995. "Indicators of Grassland Sustainability: A First Approximation." Pp. 309-319 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Robinson, J.B. 1991. "Modelling the Interactions between Human and Natural Systems." *International Social Science Journal* 130 (November): 629-645.
- Root, T.L. and S.H. Schneider. 1995. "Ecology and Climate: Research Strategies and Implications." *Science* 269 (21 July): 334-341.
- Running, S.W., T.R. Loveland, and L.L. Pierce. 1994. "A Vegetation Classification Logic Based on Remote Sensing for Use in Global Biogeochemical Models." *Ambio* 23 (1): 77-81.
- Schneider, S.H. 1994. "Detecting Climatic Change Signals: Are There Any 'Fingerprints?'" *Science* 263 (21 January): 341-347.
- Serôa da Motta, R. 1994. "Some Comments on Depletion and Degradation Costs in Income Measurement." *Ecological Economics* 11 (1): 21-25.
- Shuttleworth, W.J. 1994. "Large-scale Experimental and Modelling Studies of Hydrological Processes." *Ambio* 23 (1): 82-86.
- Sivard, R.L. 1993. *World Military and Social Expenditure 1993*. 15th ed. Washington, DC: World Priorities, Inc.
- Slessor, M. and J. King. 1988. "Resource Accounting: An Application to Development Planning." *World Development* 16 (2): 293-303.

- Slessor, M. and J. King. 1994. "Population, Resources, Environment and Development: A Natural Capital Accounting Approach to the Assessment of Carrying Capacity." Pp. 133-151 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Smith, V.K. and Huang Ju-Chin. 1995. "Can Markets Value Air Quality: a Meta-Analysis of Hedonic Property Values." *Journal of Political Economy* 103 (1): 209-227.
- Solorzano, R., R. de Camino, R. Woodward, J. Tosi, V. Watson, A. Vasquez, C. Villalobos, J. Jimenez, R. Repetto, and W. Cruz. 1991. *Accounts Overdue: Natural Resource Depreciation in Costa Rica*. Washington, DC: World Resources Institute.
- Southworth, F., V.H. Dale, and R.V. O'Neill. 1991. "Contrasting Patterns of Land Use in Rondonia, Brazil: Simulating the Effects of Carbon Release." *International Social Science Journal* 130 (November): 681-698.
- Steer, A. and E. Lutz. 1993. "Measuring Environmentally Sustainable Development." *Finance and Development* 30 (4): 20-23.
- Stern, P.C., O.R. Young, and D. Druckman (eds.). 1992. *Global Environmental Change: Understanding the Human Dimensions*. Washington, DC: National Academy Press.
- Stevens, Jr., D.L. 1994. "Implementation of a National Monitoring Program." *Journal of Environmental Management* 42 (September): 1-29.
- Stocking, M. 1989. "Measuring Land Degradation." Pp. 49-63 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Tisdell, C. 1993. "Project Appraisal, The Environment and Sustainability for Small Islands." *World Development* 21 (2): 213-219.
- Trzyna, T.C. (ed.). 1995. *A Sustainable World: Defining and Measuring Sustainable Development*. London: Earthscan.
- Ulanowicz, R.E. 1991. "Contributory Values of Ecosystem Resources." Pp. 253-268 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- United Nations. 1993. *Integrated Environmental and Economic Accounting*. New York: United Nations.
- United Nations Environment Programme. 1987. *Environmental Data Report*. Oxford: Basil Blackwell.
- United Nations Environment Programme. 1991. *Environmental Data Report: 1991/92*. Third Edition. Oxford: Basil Blackwell.
- Victor, P.A. 1991. "Indicators of Sustainable Development: Some Lessons from Capital Theory." *Ecological Economics* 4 (December): 191-213.
- Wathern, P. (ed.) 1993. *Environmental Impact Assessment: Theory and Practice*. London: Unwin Hyman.

- White, M.J. 1986. "Segregation and Diversity: Measures of Population Distribution." *Population Index* 52 (2): 198-221.
- Whittington, D., J. Briscoe, Mu Xinming, and W. Barron. 1990. "Estimating the Willingness to Pay for Water Services in Developing Countries: A Case Study of Contingent Valuation Surveys in Southern Haiti." *Economic Development and Cultural Change* 38 (January): 293-311.
- Williams, E.R. 1992. "The Schuman Resonance: A Global Tropical Thermometer." *Science* 256 (22 May): 1184-1187.
- Woodwell, G.M., R.A. Houghton, and T.A. Stone. 1986. "Deforestation in the Brazilian Amazon Basin Measured Satellite Imagery." Pp. 23-32 in *Tropical Rainforests and the World Atmosphere*. Boulder, CO: Westview Press.
- World Bank. 1993. *The Environmental Data Book: A Guide to Statistics on the Environment and Development*. Washington, DC: The World Bank.
- World Bank. 1995. *Monitoring Environmental Progress: A Report on Work in Progress*. Washington, DC: The World Bank.
- World Conservation Monitoring Centre. 1992. *Global Biodiversity: Status of the Earth's Living Resources*. London: Chapman and Hall.
- World Resources Institute and International Institute for Environment and Development. 1986. *World Resources 1986*. New York: Basic Books.
- World Resources Institute, International Institute for Environment and Development, and United Nations Environment Programme. 1988. *World Resources 1988-89*. New York: Basic Books.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1990. *World Resources 1990-91*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1992. *World Resources 1992-93*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1994. *World Resources 1994-95*. New York: Oxford University Press.
- World Resources Institute, International Institute for Environment and Development, and IUCN - The World Conservation Union. 1992. *Country Environmental studies: An Annotated Bibliography of Environmental and Natural Resource Profiles and Assessments*. Washington, DC: World Resource Institute.
- Young, J.E. 1994. "Using Computers for the Environment." Pp. 99-116 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.

- Zinn, F.D., S.R. Brechin, and G.D. Ness. 1993. "Perceiving Population-Environment Dynamics: Toward an Applied Local-Level Population-Environment Monitoring System." Pp. 357-375 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Zweifler, M.O., M.A. Gold, and R.N. Thomas. 1994. "Land Use Evaluation in Hill Regions of the Dominican Republic." *The Professional Geographer* 46 (February): 39-53.

II. Natural Resources and the Development Process

This chapter features materials that examine and assess the roles played by natural resources in the process of societal development. Early students of social and economic change such as Malthus and Marx gave explicit recognition to the influence of variations in resource availability, quality, and control on national and regional economies and social institutions. However, with the exception of the past two decades, few Twentieth Century scholars have paid much attention to natural resource issues.

The relative lack of attention to connections between natural resources and development is clearly evident when theoretical issues are explored. Available materials are reviewed in Section A, below. Efforts to develop a comprehensive theory of the role of natural resources in human activities have been limited largely to economists (Dasgupta and Heal 1979) or economically-oriented sociologists (Firey 1960). A few authors have addressed conceptual issues such as the question of what constitutes a natural resource (DeGregori 1987; Easterling III 1990; El Serafy 1991). More commonly, efforts have been concentrated on distinguishing the properties and current situation of major resource types, e.g., exhaustible and renewable resources, and their implications for economies of the future.

While it is generally agreed that both historically and currently natural resources have been the principal basis for the creation of wealth (Buttel 1984; Catton et al. 1986; Bernstam 1991), some writers (e.g., Simon 1981b) have argued for the primacy of human ingenuity, claiming that the "ultimate resource" is the human mind. Theoretically, these opposing arguments have quite different implications for the human future. If human ingenuity, expressed primarily through technological progress, can overcome problems of resource availability

(Simon 1981a, 1986), then concerns about the coming scarcity of natural resources (e.g., Allen 1976; Albrecht and Murdock 1986; Barbier 1989) can be put to rest. On the other hand, if widespread natural resource scarcities do emerge, they could become a basis for severe social and economic disruption (Barnett 1980; Booth 1983; Catton 1984) and perhaps even violent conflict within and among nations (Arad and Arad 1979; Midlarsky 1983; Catton 1984b; Westing 1986; Cleveland 1991; Homer-Dixon 1991, 1994; Gedicks 1993). Either way, theoretical discussions of resource scarcity issues can be expected to proliferate.

Factors underlying resource scarcity (or, much less frequently, its absence) have been another important subject of theoretical approaches to natural resources found in the social sciences. Commonly identified causes of scarcity include culturally-based wants, patterns and trends of economic production and consumption, and rapid population growth. Alan Durning (1991, 1992) argues that human societies are mired in an ideology of economic growth and consumption. Allen Schnaiberg (1980; also see Schnaiberg and Gould 1994) refers to the *treadmill of production* characteristic of highly industrialized societies, emphasizing how institutional factors reinforce the relationship between production and consumption. In a similar vein, William Freudenburg (1992) uses the term *addictive economies* to reflect the heavy dependence of capitalist economies on natural resources. Whether and how rapidly the treadmill and addiction metaphors will describe accurately the socioeconomic situation of developing nations is an important, but infrequently explored, theoretical issue. In contrast to the emphasis on the economic bases of resource depletion in more industrialized societies, rapid population growth is more commonly identified as a principal cause of resource depletion in developing nations, though that thesis has been subject to a number of important qualifications (Repetto and Holmes 1984; National Research Council 1986; Slade 1987). Whatever their source, escalating demands on natural resource stocks could ultimately threaten the *carrying capacity* of local, regional, national and even global environments (Catton 1980, 1993), but the social, cultural, economic, and political dimensions of the idea of carrying capacity are still not well understood.

One big theoretical question that has been examined, largely through statistical modelling, concerns the extent to which the supply and/or quality of natural resources constitute insuperable limits to the growth and development of human societies (Meadows et al. 1972, 1992; Barney et al. 1980; Simon and Kahn 1984). Stated differently, the issue is to determine whether, or under what conditions, exploitation of the earth to serve human needs and purposes would result in irreversible damage to the resource base. In spite of strong opinions expressed by both advocates and opponents of the idea of limits to growth, the question remains unresolved. A principal barrier to doing so is the lack of a compelling and testable theory.

Apart from the broad theoretical issues mentioned above, some social

scientists have been concerned more specifically with implications of the conditions under which natural resources are obtained and used. For example, one area of resource-relevant theoretical work pertains to the consequences of economic dependence on natural resource extraction for communities and regions (Bunker 1984b, 1985, 1989, 1992, 1994; Freudenburg 1992). Generally, extractive industries are believed to create a vicious cycle of dependence which leads to increased environmental degradation and decreasing options for development of less damaging forms of economic activity. Another issue concerns the effects of ownership institutions on resource use and environmental protection. Considerable debate has centered around Garritt Hardin's (1968) portrayal of the "tragedy of the commons." The relative merits of private ownership as opposed to common property (or common access) resources have yet to be determined (McCay and Acheson 1987a, 1987b; Berkes 1989; Brox 1990; Feeney et al. 1990; Ostrom 1990).

Section B covers resource stock and flow questions. The central tasks addressed in the literature are, first, to estimate the stock (or supply) of natural resources at varying levels of geopolitical aggregation and, second, to estimate the flow (rate of use and net balance of use/replenishment in the case of renewable resources) of particular kinds of resources. These objectives are pragmatic and important. Nonetheless, available information is typically judged to be inadequate to either test theories of the role of natural resources in societal development or to provide guidelines for interventions needed to protect the resource base. The difficulties stem primarily from methodological problems associated with measurement and monitoring of the resource base (see Section I.D, above).

In recent years there have been increased efforts to provide a global assessment of the quantity and quality of the resource base (MacKellar and Vining 1987; Cole 1988; World Resources Institute et al. 1990, 1992, 1994). On the whole, these assessments conclude that stocks of exhaustible resources are dwindling, but opinions differ as to whether this should be cause for immediate worry (cf. Norgaard 1990 and Moore 1992, 1995). In contrast, there appears to be growing, though by no means universal, agreement that in many parts of the world demands on renewable resources exceed significantly their rate of replacement.

Evidence regarding regional resource patterns can be derived from some of the global data sources (e.g., World Resources Institute et al. 1992, 1994). Outdated regional or subregional assessments are available for Sub-Saharan Africa (Beyer 1980; Anderson 1984), Asia (Murton 1980; Whitney 1980), Latin America and the Caribbean (Deneven 1980), and the Middle East (Manners 1980). Generally, there is a need for more comprehensive and systematic assessments of global, regional, and national levels and trends of the quantity and quality of natural resources.

Stock and flow resource accounting has also been applied to specific types of natural resources. Studies are available with regard to energy (Edmonds and

Reilly 1985; Masters et al. 1990; Starr et al. 1992; OECD 1994), non-fuel minerals (Steinhart 1980; Bennett et al. 1984), land (Meyer and Turner II 1992; World Resources Institute et al. 1994), forests (FAO 1982, 1993; Sedjo and Lyon 1990), water (Gleick 1993), and biodiversity (May 1992; World Conservation Monitoring Centre 1992).

Results of these and related studies tend to be inconclusive and often controversial, largely because of the measurement problems already mentioned. Nonetheless, few knowledgeable observers would dispute the conclusion that the demand for natural resources of all varieties continues to increase, and that the rate of growth is now significantly higher among developing nations (Mikesell 1988).

The remaining sections of Chapter II are devoted to two categories of natural resources: non-fuel minerals and energy (Section C) and land, water, forests, and biodiversity (Section D). The materials cited emphasize ways in which the activities and institutions underlying economic and social development are dependent on continued access to natural resources. In addition, some of these studies address problems emerging from situations in which such access is denied, inadequate, or otherwise problematic.

Although Section C covers both non-fuel minerals and energy, the vast majority of the development-related literature it contains is focused on energy issues. While some analysts continue to emphasize that mineral resources still serve as a basic source of national wealth and industrial productivity (Eyre 1978; Tanzer 1980), the availability of substitute materials and more optimistic estimates of mineral deposits have assuaged fears that shortages will soon be a major obstacle to industrial growth (cf. Bennett and Williams 1981), particularly if opportunities for recycling materials are increased (Chandler 1984). Recently attention has turned to the political economy of mineral consumption and trade. A dominant concern is the increasingly precarious position of developing country economies heavily reliant on the export of raw materials (Tanzer 1980; Vogely 1985; Haglund 1986; Barham et al. 1995). In spite of significant decline in the market price of many minerals, these resource-dependent countries and regions have few viable alternatives. Other writers (e.g., Young 1992b) have argued that mineral extraction activities are significant for societal development largely because of the environmental damage they cause and their high energy requirements. The central challenge for many poor countries is to find a more sustainable path to economic survival and social betterment.

In contrast to development scholars' declining interest in non-fuel minerals issues, concern over problems of energy resources has continued to grow. Following in the footsteps of Fred Cottrell's classic *Energy and Society* (1955), several recent studies have explored the multiple symbiotic linkages between human social organization and energy stocks and flows (Rosa et al. 1988; Clark 1990; Smil 1991, 1994; Schipper and Meyers 1992; Stern and Aronson 1994). Energy issues are of particular significance for developing nations. Rapid

population growth (Rasmuson and Zetterstrom 1992; Batiwala and Reddy 1994) and increased economic activity (Edmonds and Reilly 1985; Goldemberg et al. 1987; Soussan 1988; Holdren 1990; Lovins 1991; Holdren and Panchri 1992; Meyers and Schipper 1992; Lenssen 1993; OECD 1994) can only yield greater demand for and consumption of energy resources by Third World countries. Recognition of the severe disruptions in the global economy and energy markets that could result, as well as the real prospect of future energy shortages, has generated efforts to define the role of energy resources and strategies in the quest for sustainable development (Peet 1992; World Energy Council 1993; Flavin and Lenssen 1994; Gleick 1994; Pimentel et al. 1994; Goldemberg 1995). A particular concern is how to meet the rapidly expanding demand for electricity in the developing world (Flavin 1984, 1986; Flavin and Lenssen 1994).

Attention continues to be focused on the changing problems and prospects of specific energy resources. In spite of periodic efforts to promote alternative sources, petroleum remains the primary source of power for human societies and will fulfill that role for the foreseeable future (Al Wattari 1980; L.R. Brown 1984; Singer 1984; Flavin 1985; Auty 1990; Krapels 1993). In most nations other sources such as coal (Beckmann 1984a), natural gas (McDonald 1990; Håmsø et al. 1994), and nuclear fission (Hayes 1976; Flavin 1983) will be supplementary until petroleum is no longer a viable option or until less polluting, renewable sources are technologically and financially feasible (e.g., Hayes 1977a; Flavin 1982; Beckmann 1984a; King and Slesser 1994). A final issue that is still a concern for many developing countries is the dependence of many families on fuelwood for cooking and heating and the corresponding effects on deforestation (Moss and Morgan 1981; Smith 1981; Whitney 1981; de Montalembert and Clement, 1983; Eckholm et al. 1984; O'Keefe and Raskin 1985; Agarwal 1986).

Studies and reviews of the political economy of energy have been reported for most of the major geopolitical regions of the world; e.g., Africa (Raskin and Lazrus 1991; Davidson 1992; Karekezi 1994), Asia and the Pacific (Razavi and Fesharaki 1991; Sathaye and Tyler 1991; Rumani et al. 1992; Sayalath 1995); and Latin America and the Caribbean (Sterner 1991; Munasinghe 1992). Moreover, energy problems and issues have been highlighted for a number of individual countries, especially relatively populous ones such as China (Smil 1976, 1988, 1993; Perluck et al. 1991; Sathaye and Tyler 1991; Levine et al. 1992; Dorian 1994; Jiang Zhenping 1994) and Brazil (Geller and Zylberstajin 1991; Rask 1995).

Not surprisingly, the largest number of studies cited in this chapter pertain to the fundamental natural resources upon which all economies depend: land, water, and forests. They are located in Section D, along with materials focused on the related issue of biodiversity.

During the past decade or so a number of comprehensive assessments of global and regional land resource problems have been published (e.g., Revelle 1984; Blaikie 1987; Blaikie et al. 1987; Little and Horowitz 1987; Richards 1990;

Jolly and Torry 1993b; Heilig 1994). The issues covered are highly variable, ranging from the influence of topography on the subsistence potential of human populations to ways in which social and cultural institutions affect land use patterns. Because land can be used for a variety of purposes --- e.g., to produce fuel or food, and within the latter, to support cattle or crops --- questions about the rationale for and consequences of choices among competing land uses have been addressed by a number of investigators (Bajracharya 1983; Joss et al. 1986; Wolf 1986; Box 1990; Pimentel 1992).

Except under unusual circumstances land is a scarce resource. It is therefore frequently an object of competition and a source of intergroup conflict (Foweraker 1981; Bennett 1988; Castro 1988; Ghee and Valencia 1991; Agarwal 1994). An important factor affecting relative land scarcity as well as ways in which land is husbanded derives from land tenure institutions, and these relationships have been given considerable attention by researchers (Newman 1981; Bruce and Fortmann 1988; Thiesenhusen 1989a, 1989b, 1991; Barlow 1991; Cernea 1991) as have efforts to reform land tenure institutions (Eckholm 1979; Dorner and Thiesenhusen 1979; Prosterman and Riedinger 1987).

Doubtless the most extensive body of research regarding land as a natural resource is focused on agricultural issues. During the past three decades a number of scholars have debated the effects of population increase on agricultural innovation and productivity (e.g., Boserup 1965; Robinson and Shutjer 1984; 1985; Bilsborrow 1987, 1992; Okafor 1987; Bilsborrow and Geores 1994; Ruttan 1993b; Wolman 1993). Others have raised questions about the sustainability of contemporary agricultural institutions and practices in developing countries (Hrabovszky 1985; Brown 1987; Clay and Lewis 1990; Crosson 1992; Mahtab and Karim 1992; Biswas 1993, 1994; Ruttan 1993a), often focusing on the effects of changes in agricultural technology (Pingali and Bingswanger 1987; Coxhead and Jayasuriya 1994). Over the last decade or so a heated debate has arisen over the future of food production. Although the issues are complex, the fundamental question is whether sufficient food can be produced to feed the human population in light of a deteriorating agricultural resource base and changing food preferences (Brown 1985, 1989, 1995; Johnson 1984; Bradley 1986; Srinivasan 1987; Hendry 1988; Pimentel and Hall 1989; Pimentel 1991; Bohle and Krüger 1993; Ehrlich and Daily 1993; Döös 1994; Dyson 1994; East-West Center 1994; Kendall and Pimentel 1994; Goodman and Watts 1994; Smil 1994, 1995).

The world's geopolitical regions, as well as particular countries, reflect a wide variety of land-related issues and problems. Recent studies focused on Africa include the following references: Ibrahim 1987; Castro 1988; Clay et al. 1988; Downs and Reyna 1988; Ellis and Swift 1988; Biot and Stocking 1989; Ford and Brown 1990; Kline-Cole et al. 1990; Cleaver and Gotz 1991; Agbo et al. 1993; Bruce et al. 1993; Lutz and Holm 1993; Mortimore 1993; Conelly 1994; Hansen 1994; Holgrem et al. 1994; Homewood 1994; Kreuter and Workman 1994; and

Phillips-Howard and Lyon 1994. Studies of conditions and trends in Asia include: Blaikie 1988; Barlow 1991; Booth 1991; Hardjono 1991; Nibbering 1991; Evenson 1993; Smil 1993; Agarwal 1994; East-West Center 1994; Edmonds 1994a, 1994b; and Brown 1995. Land resource research conducted in Latin American and the Caribbean includes: Leonard 1987; Thiesenhusen 1989b; Redclift and Goodman 1991; and Ryder 1994.

While the connection between land resources and development has been an issue at least since the time of Malthus, widespread recognition of the critical role of water is more recent. Nonetheless, over the past decade a number of comprehensive assessments have been published (Hanke 1984; White 1984; Rogers 1985; Falkenmark 1986; Maltby 1986; la Rivière 1989; Frederick 1990; L'Vovich et al. 1990; Clarke 1991; Falkenmark and Widstrand 1992; Postel 1992; Gleick 1993a, 1993d, 1993e; Shiklomanov 1993; Anderson 1995).

As in the case of land resources, some common themes have emerged. Several studies are focused on the characteristics and functions of different types of aquatic ecosystems, e.g., freshwater systems (Schwarz et al. 1990; Teels 1990; Carpenter 1992; Covich 1993; Falkenmark 1994a, 1994b; Jansson et al. 1994) as opposed to coastal and marine ecosystems (Walker 1990; Carpenter 1992). One investigator (Gleick 1993c, 1994) has emphasized the connections between energy and water resources. Paralleling analyses of land issues, water resource researchers have argued that water scarcity is an important constraint on development (Ayibotele and Falkenmark 1992; Falkenmark and Lindh 1993; Postel 1993a, 1993b) and a source of intergroup conflict (Starr 1991; Gleick 1993b). Given increased demands on water resources in the developing world, questions about sustainability are now being raised (e.g., Falkenmark and Adiwoso Supropto 1992; Engleman and LeRoy 1993). While agriculture and food production define the principal issues regarding land sustainability, in the case of water resources an emerging parallel concern centers on fishing. Some researchers suggest that fish catches in many parts of the world have reached or already exceed the limits of sustainable withdrawal (Wise 1984; Gordon 1990; Rice 1991; Sherman 1995; Soegiarto 1995). Finally, a few studies have examined the influence of population growth on the distribution and use of water resources (e.g., Nelson and Sandell 1990; Weber 1994).

Perhaps because of the relative recency of interest in and concern over the effects of water resources on socioeconomic development, the literature focused on regional and national conditions and trends is relatively small. Relevant studies are available for Africa (Falkenmark 1989b), the Middle East (Neff and Matson 1984; Starr and Stoll 1988; Falkenmark 1989a; Lowi 1993), and Asia (Smil 1979, 1993; Edmonds 1994a, 1994b; Liu and Tan 1994; Zhang et al. 1995).

The literature on forest resources, and the process of deforestation in particular, is enormous. Reviews of the major issues are found in Sedjo and Clawson 1984; Mather 1987, 1990; Fortmann and Bruce 1988; Westoby 1989;

Hagenstein 1990; Myers 1991, 1992b and Sharma 1992. Much of the recent analysis has been focused on tropical forest regions (Guppy 1984; Myers 1986; Burley and Hazelwood 1988; Proctor 1988; Browder 1990; Collins 1990; Lugo 1992; Burgess 1993; FAO 1993; Grainger 1993b, 1993c; Bowman 1994). Some writers have emphasized the heavy dependence of developing country populations, particularly the poor, on the forests (Chambers and Leach 1989; Grimes et al. 1994; Adger et al. 1995). Increasingly, there is evidence of intergroup conflict over forest resources (e.g., Bunker 1985; Hall 1989) and of their abuse by commercial interests (Douglas et al. 1993). In some, probably many, areas it would appear that carrying capacity has been surpassed (cf. Fearnside 1986, 1990b; Gadgil and Guha 1992; Smil 1993).

The most visible and publicized issue regarding developing country forests is the process of *deforestation*. The overall trend is well-known (Bowonder 1985; Richards and Tucker 1988; Williams 1989; FAO 1993) and many investigators have sought to identify underlying causes (Allen and Barnes 1985; Fearnside 1987; Klein and Perkins 1987; Walker 1987; Deneven 1988; Laarman 1988; Rudel 1989; A.B. Anderson 1990; Cruz and Cruz 1990; Rowe et al. 1992; Grainger 1993b; Jarosz 1993; Moran 1993; Mendelsohn 1994; Schmink 1994). Major concerns include the effect on fuelwood supplies for the poor (Anderson and Fishwick 1984; Dewees 1989; Leach and Mearns 1989), other monetary and socioeconomic costs (Browder 1988; Ives and Pitt 1988; Barbier et al. 1990; Halhead 1992; Barbier 1993), and related ecosystem consequences (Hamilton and Pearce 1988).

There is a large literature covering forest resource issues for most of the developing world. Studies focused on Africa and African countries include: Kleinart 1987; Hosier 1988; Osenobo 1988; Brokensha and Riley 1988; Fortmann 1988; Goucher 1988; Thomson 1988; and Zaimeche 1994a, 1994b. For Asia, useful discussions are found in: Smil 1983; Chattopadhyay 1985; Hirsch 1987; Feeny 1988; Bautista 1990; Brookfield and Byron 1990; Cruz and Cruz 1990; Eder 1990; Gadgil 1990; Lohmann 1990; Gadgil and Guha 1992; Brechin et al. 1993; Douglas et al. 1993; Rigg 1993; and Chaturvedi 1994. The largest volume of scholarly attention has been concentrated on Latin America and the Caribbean. For example, see Fearnside 1982, 1983, 1986, 1989a, 1990a, 1993; Heming 1985; Lewis and Coffey 1985; Dryzek and Glenn 1987; Deneven 1988; Eyre 1988; Malingreau and Tucker 1988; Mauer 1988; Hall 1989; Joly 1989; Mahar 1989; Salati et al. 1989; A.B. Anderson 1990; Hecht and Cockburn 1990; Barkin 1992; Downing et al. 1992; Hecht 1992; Milikan 1992; Salati 1992; Southgate and Whitaker 1992; Rudd and Horowitz 1993; Southgate et al. 1993; and Adgar et al. 1995).

Biodiversity (including extinction of species) is a relative latecomer to the pantheon of natural resource issues. Nonetheless, scholars have reviewed the central issues (e.g., Eckholm 1978; Myers 1979, 1983a, 1987, 1995; Wilson 1985, 1989, 1992; Yeager and Miller 1986; Worton 1986; Wilson and Peters 1988;

Nelson and Sarafin 1992; World Conservation Monitoring Centre 1992; Hoyle 1993; Edwards 1995; Pimm et al. 1995). Generally, three sets of issues have been examined. First, some writers have emphasized the intrinsic benefits of maintaining a high level of biodiversity (e.g., Prescott-Allen and Prescott-Allen 1982; Oldfield 1989; Soejarto and Farnsworth 1989; Ehrlich and Ehrlich 1992; Perrings et al. 1992; Sedjo 1992a; Toledo 1992). Second, various estimates have been offered (and challenged) regarding the rate and level of extinction of differing species in various parts of the world (Ehrlich and Ehrlich 1981; Myers 1988, 1990; Pimm et al. 1988; Diamond 1989; Arroyo et al. 1992). Third, various causes of species loss have been identified, including, for example, industrialization and development (Eltringham 1984), deforestation (Botkin and Talbot 1992), and pesticide use (Avery 1995).

A. Natural Resource Theory

- Ackerman, E.A. 1959. "Population and Natural Resources." Pp. 621-648 in *The Study of Population*, eds. P.M. Hauser and O.D. Duncan. Chicago: University of Chicago Press.
- Adams, R.N. 1975. *Energy and Structure: A Theory of Social Power*. Austin: University of Texas Press.
- Adams, R.N. 1981. "Natural Selection, Energetics, and 'Cultural Materialism'." *Current Anthropology* 22 (6): 603-624.
- Adams, R.N. 1988. *The Eighth Day: Social Evolution as the Self-Organization of Energy*. Austin: University of Texas Press.
- Al-Wattari, A., J. Steinhart and D. Hertzmark. 1980. "Efficiency, Conservation, and Development." Pp. 171-204 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Albrecht, D.E. and S.H. Murdock. 1986. "Natural Resource Availability and Social Change." *Sociological Inquiry* 56 (Summer): 381-400.
- Allen, W.R. 1976. "Scarcity and Order: The Hobbesian Problem and the Humean Resolution." *Social Science Quarterly* 57 (September): 263-275.
- Arad, R.W. and U.B. Arad. 1979. "Scarce Natural Resources and Potential Conflict." Pp. 23-59 in *Sharing Global Resources*, by R.W. Arad et al. New York: McGraw-Hill.
- Arizpe, L., R. Costanza, and W. Lutz. 1992. "Population and Natural Resource Use." Pp. 61-78 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Barbier, E.B. 1989. *Economics, Natural Resource Scarcity and Development: Conventional and Alternative Views*. London: Earthscan.
- Barnet, R.J. 1980. *The Lean Years: Politics in the Age of Scarcity*. New York: Simon and Schuster.
- Barnett, H.J. and C. Morse. 1963. *Scarcity and Growth: The Economics of Natural Resource Availability*. Baltimore: The Johns Hopkins University Press.
- Barney, G.O. et al. 1980. *The Global 2000 Report to the President*. Vol. II: *The Technical Report*. Washington, DC: U.S. Government Printing Office.
- Bennett, J.W. 1984. "Ecosystems, Environmentalism, Resource Conservation, and Anthropological Research." Pp. 289-310 in *The Ecosystem Concept in Anthropology*, ed. E.F. Moran. Boulder: Westview Press.
- Benoit, E. 1980. *Progress and Survival: An Essay on the Future of Mankind*, ed. J.B. Cohn. New York: Praeger.

- Berkes, F. 1985. "The Common Property Resource Problem and the Creation of Limited Property Rights." *Human Ecology* 13 (June): 187-208.
- Berkes, F. (ed.) 1989. *Common Property Resources: Ecology and Community-Based Sustainable Development*. London: Belhaven.
- Bernstam, M.S. 1991. "The Wealth of Nations and the Environment." Pp. 333-373 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Berry, S. 1989. "Social Institutions and Access to Resources." *Africa* 59 (1): 41-55.
- Bina, C. 1989. "Some Controversies in the Development of Rent Theory: The Nature of Oil Rent." *Capital and Class*, No. 39 (Winter): 82-112.
- Blaikie, P. 1986. "Natural Resource Use in Developing Countries." Pp. 107-126 in *A World in Crisis? Geographical Perspectives*, eds. R.J. Johnston and P.J. Taylor. Oxford: Basil Blackwell.
- Blaikie, P. 1989. "Environment and Access to Resources in Africa." *Africa* 59 (1): 18-40.
- Booth, A. 1983. "Social Responses to Protracted Scarcity." Pp. 85-104 in *Scarce Natural Resources: The Challenge to Public Policy*, eds. S. Welch and R. Miewald. Beverly Hills, CA: Sage Publications.
- Braat, L.C. and I. Steetskamp. 1991. "Ecological-Economic Analysis for Regional Sustainable Development." Pp. 269-288 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Brobst, D.A. 1979. "Fundamental Concepts for the Analysis of Resource Availability." Pp. 106-142 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Brox, O. 1990. "The Common Property Theory: Epistemological Status and Analytical Utility." *Human Organization* 49 (Fall): 227-235.
- Buck, S.J. 1989. "Cultural Theory and Management of Common Property Resources." *Human Ecology* 17 (March): 1101-116.
- Bunker, S.G. 1984a. "The Exploitation of Labor in the Appropriation of Nature: Toward an Energy Theory of Value." Pp. 49-73 in *Labor in the Capitalist World Economy*, ed. G. Bergquist. Beverly Hills, CA: Sage Publications.
- Bunker, S.G. 1984b. "Modes of Extraction, Unequal Exchange, and the Progressive Underdevelopment of an Extreme Periphery." *American Journal of Sociology* 89 (March): 1017-1064. [Also see "R.W. Volk, "Comment on Bunker," *Ibid* 91 (May 1986), pp. 1431-1437 and S.G. Bunker, "On Values in Modes and Models: Reply to Volk," *Ibid* 91 (May 1986), pp. 1437-1444.]
- Bunker, S.G. 1985. *Underdeveloping the Amazon: Extraction, Unequal Exchange, and the Failure of the Modern State*. Urbana: University of Illinois Press.

- Bunker, S.G. 1989. "Staples, Links, and Poles in the Construction of Regional Development Theories." *Sociological Forum* 4 (3): 589-610.
- Bunker, S.G. 1992. "Natural Resource Extraction and Power Differentials in a Global Economy." Pp. 61-84 in *Understanding Economic Progress*, eds. S. Ortiz and S. Lees. Washington, DC: University Press of America.
- Bunker, S.G. 1994. "The Political Economy of Raw Materials Extraction and Trade." Pp. 437-450 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Bunker, S.G. and D. O'Hearn. 1992. "Strategies of Economic Ascendents for Access to Raw Materials: A Comparison of the United States and Japan." Pp. 87-102 in *Pacific Asia and the Future of the World System*, ed. R.A. Palat. Westport, CT: Greenwood Press.
- Burch, Jr., W.R. 1970. "Resources and Social Structure: Some Conditions of Stability and Change." *Annals of the American Academy of Political and Social Science* 389 (May): 27-34.
- Buttel, F.H. 1976. "Social Science and the Environment: Competing Theories." *Social Science Quarterly* 57 (September): 307-323.
- Buttel, F.H. 1984. "Dependence on Former Dependents." Pp. 24-48 in *Resource Dependency*. East Lansing, MI: Environmental Sociology Section, American Sociological Association.
- Buttel, F.H. 1986. "Toward a Rural Sociology of Global Resources: Social Structure, Ecology, and Latin American Agricultural Development." Pp. 129-164 in *Natural Resources and People: Conceptual Issues in Interdisciplinary Research*, eds. K.A. Dahlberg and J.W. Bennett. Boulder, CO: Westview Press.
- Carlson, E. and M.S. Bernstam. 1991. "Population and Resources under the Socialist Economic System." Pp. 374-407 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Catton, Jr., W.R. 1976. "Why the Future isn't what it Used to be (And How it could be Made Worse than it has to be)." *Social Science Quarterly* 57 (September): 276-291.
- Catton, Jr., W.R. 1984a. "Problems of Diachronic Competition on a Finite Planet." Pp. 9-23 in *Resource Dependency*. East Lansing, MI: Environmental Sociology Section, American Sociological Association.
- Catton, Jr., W.R. 1984b. "Probable Collective Responses to Ecological Scarcity: How Violent?" *Sociological Perspectives* 27 (January): 3-20.
- Catton, Jr., W.R. 1993. "Carrying Capacity and the Death of a Culture: A Tale of Two Autopsies." *Sociological Inquiry* 63 (Spring): 202-223.

- Catton, Jr., W.R. "System Dependent on its Resource Base?" Pp. 165-186 in *The Social Fabric: Dimensions and Issues*, ed. J.F. Short, Jr. Beverly Hills, CA: Sage Publications.
- Caulfield, R.M. 1983. "Liberty and Scarcity: William Ophuls Reconsidered." Pp. 47-64 in *Scarce Natural Resources: The Challenge to Public Policymaking*, eds. S. Welch and R. Miewald. Beverly Hills, CA: Sage Publications.
- Chenery, H.B. 1964. "Land: The Effect of Resources on Economic Growth." Pp. 19-49 in *Economic Development with Special Reference to East Asia*, ed. K. Berrill. New York: St. Martins Press.
- Choucri, N. and R.C. North. 1975. *Nations in Conflict: National Growth and International Violence*. San Francisco: W.H. Freeman.
- Clark, C.W. 1991. "Economic Biases Against Sustainable Development." Pp. 319-330 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Cleveland, C.J. 1991. "Natural Resource Scarcity and Economic Growth Revisited: Economic and Biophysical Perspectives." Pp. 289-317 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Connelly, P. and R. Perlman. 1975. *The Politics of Scarcity: Resource Conflicts in International Relations*. New York: Oxford University Press.
- Cottrell, F. 1955. *Energy and Society: The Relation between Energy, Social Change, and Economic Development*. New York: McGraw-Hill.
- Cutter, S.L., H.L. Renwick, and W.H. Renwick. 1985. *Exploitation, Conservation, Preservation: A Geographic Perspective on Natural Resource Use*. Totowa, NJ: Rowman and Allanheld.
- Dahlberg, K.A. 1986. "The Changing Nature of Natural Resources." Pp. 11-35 in *Natural Resources and People: Conceptual Issues in Interdisciplinary Research*, eds. K.A. Dahlberg and J.W. Bennett. Boulder, CO: Westview Press.
- Dahlberg, K.A., J.E. Harf, and B.T. Trout (eds.) 1985. *Environment and the Global Arena*. Durham, NC: Duke University Press.
- Daly, H.E. 1979. "Entropy, Growth, and the Political Economy of Scarcity." Pp. 67-94 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Dasgupta, P.S. 1982. *The Control of Resources*. Oxford: Basil Blackwell.
- Dasgupta, P. 1991. "The Environment as a Commodity." Pp. 25-51 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Dasgupta, P.S. and G.M. Heal. 1979. *Economic Theory and Exhaustible Resources*. Cambridge: Cambridge University Press.
- De Gregori, T.R. 1987. "Resources are Not; They Become: An Institutional Theory." *Journal of Economic Issues* 21 (September): 1241-1263.

- Delacroix, J. 1977. "Export of Raw Materials and Economic Growth." *American Sociological Review* 42 (October): 795-808. [Also see R. Stokes and D. Jaffee, "Another Look at the Export of Raw Materials and Economic Growth," *Ibid* 47 (June 1982), pp. 402-407.]
- Demeny, P. 1991. "Tradeoffs Between Human Numbers and Material Standards of Living." Pp. 408-423 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Durning, A.T. 1991. "Asking How Much is Enough." Pp. 153-169 in *State of the World 1991* by L.R. Brown et al. New York: W.W. Norton.
- Durning, A.T. 1992. *How Much is Enough? The Consumer Society and the Future of the Earth*. New York: W.W. Norton.
- Easterling III, W.E. 1990. "The Question of Climate as a Natural Resource." *Resources*, No. 100 (Summer): 13-16.
- Ehrlich, P.R. 1981a. "An Economist in Wonderland." *Social Science Quarterly* 62 (March): 44-49. [Also see J.L. Simon, 1981a, *infra*.]
- Ehrlich, P.H. 1981b. "Environmental Disruption: Implications for the Social Sciences." *Social Science Quarterly* 62 (March): 7-22. [Also see E. Cook, "The Tragedy of Turfdom." *Ibid*, pp. 23-29 and J.L. Simon, 1981a, *infra*.]
- El Sarafy, S. 1991. "The Environment as Capital." Pp. 168-175 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Ellen, R. 1993. "Rhetoric, Practice and Incentive in the Face of Changing Times: A Case Study in Nuaulu Attitudes to Conservation and Deforestation." Pp. 126-143 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Eyre, S.R. 1978. *The Real Wealth of Nations*. New York: St. Martins Press.
- Feeny, D., F. Berkes, B.J. McKay, and J.M. Acheson. 1990. "The Tragedy of the Commons: Twenty-Two Years later." *Human Ecology* 18 (1): 1-19.
- Feige, E.L. and D.M. Blau. 1980. "The Economics of Natural Resource Scarcity and Implications for Development Policy and International Cooperation." Pp.109-148 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Firey, W. 1960. *Man, Mind and Land: A Theory of Resource Use*. Glencoe, IL: The Free Press.
- Firey, W. 1978. "Some Contributions of Sociology to the Study of Natural Resources." Pp. 162-174 in *Challenges of Societies in Transition*, eds. M. Barnabas, S.K. Hulbe, and P.S. Jacob. Delhi: Macmillan.
- Fisher, A.C. 1981. *Resource and Environmental Economics*. Cambridge: Cambridge University Press.

- Francis, J.G. 1990. "Natural Resources, Contending Theoretical Perspectives, and the Problem of Prescription: An Essay." *Natural Resources Journal* 30 (Spring): 263-282.
- Freudenburg, W.R. 1992. "Addictive Economies: Extractive Industries and Vulnerable Localities in a Changing World Economy." *Rural Sociology* 57 (2): 305-332.
- Freudenburg, W.R. and S. Frickel. 1994. "Digging Deeper: Mining-Dependent Regions in Historical Perspective." *Rural Sociology* 59 (2): 266-288.
- Gale, R.P. and S.M. Cordray. 1994. "Making Sense of Sustainability: Nine Answers to 'What Should be Sustained?'" *Rural Sociology* 59 (2): 311-332.
- Gedicks, A. 1993. *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations*. Boston: South End Press.
- Georgescu-Roegen, N. 1979. "Comments on the Papers by Daly and Stiglitz." Pp. 95-105 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Gibbs, J.P. and W.T. Martin. 1958. "Urbanization and Natural Resources: A Study of Organizational Ecology." *American Sociological Review* 23 (June): 266-277.
- Gurr, T.R. 1985. "On the Political Consequences of Scarcity and Economic Decline." *International Studies Quarterly* 29 (March): 51-75.
- Hall, D.C. and J.V. Hall. 1984. "Concepts and Measures of Natural Resource Scarcity with a Summary of Recent Trends." *Journal of Environmental Economics and Management* 11 (December): 363-379.
- Hardin, G. 1968. "The Tragedy of the Commons." *Science* 162 (13 December): 1243-1248.
- Harvey, D. 1974. "Population, Resources and the Ideology of Science." *Economic Geography* 50: 256-277.
- Homer-Dixon, T.F. 1991. "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* 16 (Fall): 76-116.
- Homer-Dixon, T.F. 1994. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19 (Summer): 5-40.
- Humphrey, C.R., G. Berardi, M.S. Carroll, S. Fairfax, L. Fortmann, C. Geisler, T.G. Johnson, J. Kusel, R.G. Lee, S. Macinko, N.L. Peluso, M.D. Schulman, and P.C. West. 1993. "Theories in the Study of Natural Resource-Dependent Communities and Persistent Rural Poverty in the United States." Pp. 136-172 in *Persistent Poverty in Rural America*, ed. Rural Sociological Society Task Force on Persistent Rural Poverty. Boulder, CO: Westview Press.
- Hunker, H.L. (ed.) 1964. *Earl W. Zimmerman's Introduction to World Resources*. New York: Harper and Row.

- Ingram, H.M. and D.E. Mann. 1983. "Political Responses to Environmental Scarcity." Pp. 125-149 in *Scarce Natural Resources: The Challenge to Public Policymaking*, eds. S. Welch and R. Miewald. Beverly Hills, CA: Sage Publications.
- Jaffee, D. and R. Stokes. 1986. "Foreign Investment and Trade Dependence." *Sociological Quarterly* 27 (4): 533-546.
- Keyfitz, N. 1976. "World Resources and the Middle Class." *Scientific American* 235 (1): 28-35.
- Kemp, G. 1978. "Scarcity and Strategy." *Foreign Affairs* 56 (January): 396-414.
- Kincaid, J. 1983a. "Of Time, Body, and Scarcity: Policy Options and Theoretic Considerations." *International Political Science Review* 4: 401-416.
- Kincaid, J. 1983b. "The Contest of Body and Soul: Resource Scarcity in Western Political Theory." Pp. 25-46 in *Scarce Natural Resources: The Challenge to Public Policymaking*, eds. S. Welch and R. Miewald. Beverly Hills, CA: Sage Publications.
- Klausner, S.Z. 1977. "Energy and the Structuring of Society: Methodological Issues." Pp. 261-306 in *Human Behavior and Environment*, Vol. 2, eds. I. Altman and J.F. Wohlwill. New York: Plenum.
- Kneese, A.V. 1988. "The Economics of Natural Resources." Pp. 281-309 in *Population and Resources in Western Intellectual Traditions*, eds. M.S. Tettelbaum and J.M. Winter. Supplement to *Population and Development Review*, Vol. 14. New York: The Population Council.
- Larson, E.D., M.H. Ross, and R.H. Williams. 1986. "Beyond the Era of Materials." *Scientific American* 254 (6): 34-41.
- Lenski, G. 1984. "The Garden of Eden Revisited: Resource Depletion in Ecological and Evolutionary Perspective." Pp. 1-8 in *Resource Dependency*. East Lansing, MI: Environmental Sociology Section, American Sociological Association.
- Lesser, I.O. 1989. *Resources and Strategy*. New York: St. Martin's Press.
- Lipietz, A. 1986. "New Tendencies in the International Division of Labor: Regimes of Accumulation and Regimes of Regulation." Pp. 16-40 in *Production, Work, and Territory: The Geographical Anatomy of Industrial Capitalism*, eds. A.J. Scott and M. Storper. Boston: Allen and Unwin.
- Little, C.E. 1990. "Resource Sustainability." Pp. 309-314 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Low, B.S. and J.T. Heinen. 1993. "Population, Resources, and Environment: Implications of Human Behavioral Ecology for Conservation." *Population and Environment* 15 (1): 7-41.
- Machlis, G.E. and J.E. Force. 1988. "Community Stability and Timber-Dependent Communities." *Rural Sociology* 53 (2): 220-234.

- Machlis, G.E., J.E. Force, and R.G. Balice. 1990. "Timber, Minerals, and Social Change: An Exploratory Test of Two Resource-Dependent Communities." *Rural Sociology* 55 (3): 411-424.
- Maizels, A. 1994. "The Continuing Commodity Crisis of Developing Countries." *World Development* 22 (11): 1685-1695.
- Mandel, R. 1988. *Conflict Over the World's Resources*. Westport, CT: Greenwood.
- Mauil, H.W. 1989. "Energy and Resources: The Strategic Dimensions." *Survival* 31 (6): 500-518.
- McCay, B.J. and J.M. Acheson. 1987a. "Human Ecology of the Commons." Pp. 1-34 in *The Question of the Commons: The Culture and Ecology of Communal Resources*, eds. B.J. McCay and J.M. Acheson. Tucson: University of Arizona Press.
- McCay, B.J. and J.M. Acheson (eds.). 1987b. *The Question of the Commons: The Culture and Ecology of Communal Resources*. Tucson: University of Arizona Press.
- Meadows, D.H., D.L. Meadows, J. Randers, and W.W. Behrens, III. 1972. *The Limits to Growth*. New York: Universe Books.
- Meadows, D.H., D.L. Meadows, and J. Randers. 1992. *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. Post Hills, VT: Chelsea Green.
- Metzger, D. 1980. *Copper in the World Economy*. New York: Monthly Review Press.
- Midlarsky, M.I. 1982. "Scarcity and Inequality: Prologue to the Onset of Mass Revolution." *Journal of Conflict Resolution* 26 (1): 3-38.
- Midlarsky, M.I. 1983. *The Battle for Natural Resources*. Washington, DC: Congressional Quarterly.
- Miewald, R. and S. Welch. 1983. "Natural Resources Scarcity: An Introduction." Pp. 9-22 in *Scarce Natural Resources: The Challenge to Public Policymaking*, eds. S. Welch and R. Miewald. Beverly Hills, CA: Sage Publications.
- Mikdashi, Z. 1976. *The International Politics of Natural Resources*. Ithaca, NY: Cornell University Press.
- Moody, R. 1992. *The Gulliver File: Mines, People, and Land: A Global Battlefield*. London: Minewatch.
- Morgan, W. and D. Sapsford. 1994. "Commodities and Development: Some Issues." *World Development* 22 (11): 1681-1684.
- Morrison, D.E. 1976. "Growth, Environment, Equity and Scarcity." *Social Science Quarterly* 57 (September): 292-306.
- National Research Council. 1986. *Population Growth and Economic Development: Policy Options*. Washington, DC: National Academy Press.

- Nemeth, R.J. and D.A. Smith. 1988. "An Empirical Analysis of Commodity Exchange in the International Economy: 1965-1980." *International Studies Quarterly* 32 (2): 227-240.
- Nijkamp, P., J.C.J.M. van den Bergh, and F.J. Soeteman. 1991. "Regional Sustainable Development and Natural Resource Use." Pp. 153-188 in *Proceedings of the World Bank Annual Conference on Development Economics*, 1990, eds. S. Fischer, D. de Tray, and S. Shah, Washington, DC: The World Bank. [Also see comments by K.S. Parikh, *Ibid*, pp. 189-194 and W.B. Magrath, *Ibid*, pp. 195-199, and floor discussion, *Ibid*, pp. 201-205.]
- Nordhaus, W. 1974. "Resources as a Constraint on Growth." *American Economic Review* 64 (May): 22-26.
- Norgaard, R.B. 1984. "Coevolutionary Agricultural Development." *Economic Development and Cultural Change* 32 (April): 525-546.
- North, R.C. 1977. "Toward a Framework for the Analysis of Scarcity and Conflict." *International Studies Quarterly* 21 (December): 569-591.
- Nwoke, C.N. 1984. "World Mining Rent: An Extension of Marx's Theories." *Review* 9 (Summer): 29-89.
- Nwoke, C.N. 1987. *Third World Minerals and Global Pricing: A New Theory*. London: Zed Press.
- Ostrum, E. 1990. *Governing the Commons*. Cambridge: Cambridge University Press.
- Paarlberg, R.L. 1978. "Food, Oil, and Coercive Resource Power." *International Security* 3 (Fall): 3-19.
- Peach, W.N. and J.A. Constantin. 1972. *Zimmerman's World Resources and Industries*. Third Edition. New York: Harper and Row.
- Perlman, M. 1988. "Marx and Resources." *Environment, Technology, and Society* 51 (Winter): 15-19.
- Polasky, S. 1992. "The Private and Social Value of Information: Exploration for Exhaustible Resources." *Journal of Environmental Economics and Management* 23 (July): 1-21. [Also see H.E. Daly, "Is the Entropy Law Relevant to the Economics of Natural Resource Scarcity?--- Yes, of Course It Is!," *Ibid*, pp. 91-95 and K.N. Townsend, "Is the Entropy Law Relevant to the Economics of Natural Resources? Comment," *Ibid*, pp. 96-100.]
- Quiggin, J. 1988. "Private and Common Property Rights in the Economics of the Environment." *Journal of Economic Issues* 22 (December): 1071-1087.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Routledge.
- Repetto, R. 1985. "Population, Resource Pressures, and Poverty." Pp. 131-164 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.

- Repetto, R. and T. Holmes. 1984. "The Role of Population in Resource Depletion in Developing Countries." *Population and Development Review* 9 (December): 609-632.
- Ross, J.E. 1980. "Natural Limits to Natural Resources." Pp. 77-108 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Rubio, S.J. 1992. "Adjustment Costs, Uncertainty, and the Theory of Investment: The Case of Non-Renewable Resources." *Journal of Environmental Economics and Management* 23 (September): 139-153.
- Runge, C.F. 1986. "Common Property and Collective Action in Economic Development." *World Development* 14 (5): 623-635.
- Sagoff, M. 1988. *The Economy of the Earth: Philosophy, Law, and the Environment*. Cambridge: Cambridge University Press.
- Salazar, D.J. and R.G. Lee. 1990. "Natural Resource Policy Analysis and Rational Choice Theory: A Strategy for Empirical Research." *Natural Resources Journal* 30 (Spring): 263-282.
- Schmitt, R.L. and S.E. Grupp. 1976. "Resource as Symbol." *Social Science Quarterly* 57 (September): 324-338.
- Schnaiberg, A. 1980. *The Environment: From Surplus to Scarcity*. New York: Oxford University Press.
- Schnaiberg, A. and K.A. Gould. 1994. *Environment and Society: The Enduring Conflict*. New York: St. Martin's Press.
- Schworm, W.E. 1983. "Monopsonistic Control of a Common Property Renewable Resource." *Canadian Journal of Economics* 16 (May): 275-287.
- Simon, J.L. 1980. "Resources, Population, and Environment: An Oversupply of Bad News." *Science* 208 (27 June): 1431-1437.
- Simon, J.L. 1981a. "Environmental Disruption or Environmental Improvement?" *Social Science Quarterly* 62 (March): 30-43. [Also see P.R. Ehrlich, 1981a, 1981b, supra.]
- Simon, J.L. 1981b. *The Ultimate Resource*. Princeton, NJ: Princeton University Press.
- Simon, J.L. 1982. "Linguistic Confusion in Economics: Utility, Causality, Product Differentiation, and the Supply of Natural Resources." *Kyklos* 35 (4): 673-701.
- Simon, J.L. 1986. "Are Natural Resources an Increasing Constraint Upon Growth?" Pp. 184-215 in his *Theory of Population and Economic Growth*. Oxford: Basil Blackwell.
- Simon, J.L. and H. Kahn (eds.). 1984. *The Resourceful Earth: A Response to 'Global 2000'*. Oxford: Basil Blackwell.

- Slade, M. 1987. "Natural Resources, Population Growth, and Economic Well-Being." Pp. 331-369 in *Population Growth & Economic Development: Issues and Evidence*, eds. G.D. Johnson and R.D. Lee. Madison: University of Wisconsin Press.
- Smith, V.K. and J.V. Krutilla. 1979a. "The Economics of Natural Resource Scarcity: An Interpretive Introduction." Pp. 1-35 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Smith, V.K. and J.V. Krutilla. 1979b. "Summary and Research Issues." Pp. 276-290 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Solow, R.M. 1974. "The Economics of Resources or the Resources of Economics." *American Economic Review* 64 (May): 1-14.
- Solow, R.M. and F.Y. Yan. 1976. "Extraction Costs in the Theory of Exhaustible Resources." *Bell Journal of Economics* 7: 359-370.
- Spoehr, A. 1956. "Cultural Differences in the Interpretation of Natural Resources." Pp. 93-102 in *Man's Role in Changing the Face of the Earth*, ed. W.L. Thomas. Chicago: University of Chicago Press.
- Stephens, E.H. 1987. "Mineral Strategies and Development: International Political Economy, State, Class, and the Role of the Bauxite/Aluminum and Copper Industries in Jamaica and Peru." *Studies in Comparative International Development* 22 (1): 60-102.
- Stiglitz, J.E. 1979. "A Neoclassical Analysis of the Economics of Natural Resources." Pp. 36-66 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Swallow, S.K. 1990. "Depletion of the Environmental Basis for Renewable Resources: The Economics of Interdependent Renewable and Nonrenewable Resources." *Journal of Environmental Economics and Management* 19 (November): 281-296.
- Thomas, H. 1985. "The Historical Context." Pp. 33-46 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Tinbergen, J. 1975. "Demographic Development and the Exhaustion of Natural Resources." *Population and Development Review* 1 (September): 23-32.
- Tisdell, C. 1990. *Natural Resources, Growth, and Development: Economics, Ecology, and Resource-Scarcity*. Westport, CT: Praeger.
- Wade, R. 1987. "The Management of Common Property Resources: Collective Action as an Alternative to Privatisation or State Regulation." *Cambridge Economic Journal* 11 (June): 95-106.
- Wallerstein, I. 1974. "The Rise and Demise of the Future Capitalist System: Concepts for Comparative Analysis." *Comparative Studies in Society and History* 16: 387-415.

- Westing, A.H. (ed.) 1986. *Global Resources and International Conflict*. New York: Oxford University Press.
- Whitaker, J.R. 1991. Sequence and Equilibrium in Destruction and Conservation of Natural Resources." *Annals of the Association of American Geographers* 81: 129-144.
- Wrigley, E.A. 1988. "The Limits to Growth: Malthus and the Classical Economists." Pp. 30-48 in *Population and Resources in Western Intellectual Traditions*, eds. M.S. Teitelbaum and J.M. Winter. Supplement to Population and Development Review, Vol. 14. New York: The Population Council.
- Young, O.R. 1982. *Resource Regimes: Natural Resources and Social Institutions*. Berkeley: University of California Press.
- Young, O.R. 1989. *International Cooperation: Building Regimes for Natural Resources and the Environment*. Ithaca, NY: Cornell University Press.

B. Resource Stocks and Flows: Overview

- Anderson, D. 1984. "Declining Tree Stocks in African Countries." *World Development* 14 (7): 853-863.
- Barnett, H.J. 1979. "Scarcity and Growth Revisited." Pp. 163-217 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press.
- Barnett, H.J. and C. Morse. 1963. *Scarcity and Growth: The Economics of Natural Resource Availability*. Baltimore: The Johns Hopkins University Press.
- Barnett, H.J., G.M. van Muiswinkel, M. Shechter, and J.G. Myers. 1984. "Global Trends in Non-Fuel Minerals." Pp. 316-338 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Baumol, W.J. 1986. "On the Possibility of Continuing Expansion of Finite Resources." *Kyklos* 39 (2): 167-179.
- Brown, L.R. 1978. *The Twenty-Ninth Day: Accommodating Human Needs and Numbers to the Earth's Resources*. New York: W.W. Norton.
- Brown, L.R. 1994. "Facing Food Insecurity." Pp. 177-197 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, W.M. 1984. "The Outlook for Future Petroleum Supplies." Pp. 361-386 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Beyer, J.L. 1980. "Africa." Pp. 5-37 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- Brobst, D.A. 1979. "Fundamental Concepts for the Analysis of Resource Availability." Pp. 106-142 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press. [Also see B.M. Hannon, "Comments," *Ibid*, pp. 160-162.]
- Cole, J.P. 1988. "The Global Distribution of Natural Resources." Pp. 55-66 in *The Third World: States of Mind and Being*, eds. J. Norwine and A. Gonzalez. Boston: Unwin Hyman.
- Collins, M. (ed.) 1990. *The Last Rainforests: A World Conservation Atlas*. New York: Oxford University Press.
- Deneven, W.M. 1980. "Latin America." Pp. 217-244 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- Edmonds, J. and J.M. Reilly. 1985. *Global Energy: Assessing the Future*. New York: Oxford University Press.
- Food and Agriculture Organization of the United Nations (FAO). 1982. *Tropical Forest Resources*. FAO Forestry Paper No. 30. Rome: FAO.

- Food and Agriculture Organization of the United Nations (FAO). 1993. *Forest Resources Assessment 1990: Tropical Countries*. FAO Forestry Paper No. 112. Rome: FAO.
- Gatskell, A. 1964. "Resource Development Among African Countries." Pp. 271-305 in *Natural Resources and International Development*, ed. M. Clawson. Baltimore: The Johns Hopkins University Press.
- Gleick, P.H. 1993. "Fresh Water Data." Pp. 117-453 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Goeller, H.E. 1979. "The Age of Substitutability: A Scientific Appraisal of Natural Resource Adequacy." Pp. 143-159 in *Scarcity and Growth Reconsidered*, ed. V.K. Smith. Baltimore: The Johns Hopkins University Press. [Also see B.M. Hannon, "Comments," *Ibid*, pp. 160-162.]
- Grunwald, J. 1964. "Resource Aspects of Latin-American Development." Pp. 307-336 in *Natural Resources and International Development*, ed. M. Clawson. Baltimore: The Johns Hopkins University Press.
- International Institute for Environment and Development and World Resources Institute. 1987. *World Resources 1987*. New York: Basic Books.
- Johnson, M.H., F.W. Bell, and J.T. Bennett. 1980. "Natural Resource Scarcity: Empirical Evidence and Fiscal Policy." *Journal of Environmental Economics and Management* 7 (3): 256-271.
- Klee, G.A. 1980. "Oceania." Pp. 245-281 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- Lovering, T.W. 1968. "Non-Fuel Mineral Prices in the Next Century." *Texas Quarterly* 9: 127-147.
- MacKellar, F.L. and D.R. Vining, Jr. 1987. "Natural Resource Scarcity: A Global Survey." Pp. 259-329 in *Population Growth & Economic Development: Issues and Evidence*, eds. D.G. Johnson and R.D. Lee. Madison: University of Wisconsin Press.
- Manners, G. 1981. "Our Planet's Resources." *Geographical Journal* 147: 1-22.
- Manners, I.R. 1980. "The Middle East." Pp. 39-65 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- Masters, C.D., D.H. Root, and E.D. Attanasi. 1990. "World Oil and Gas Resources --- Future Production Realities." *Annual Review of Energy* 15: 23-51.
- May, R.M. 1992. "How Many Species on Earth?" *Scientific American* 266 (October): 18-24.
- McLaren, D.J. and B.J. Skinner (eds.). 1987. *Resources and World Development*. New York: Wiley.
- Meadows, D.H., D.L. Meadows, J. Randers, and W.W. Behrens, III. 1972. *The Limits to Growth*. New York: Universe Books.

- Meadows, D.H., D.L. Meadows, and J. Randers. 1992. *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. Post Hills, VT: Chelsea Green.
- Meyer, W.B. and B.L. Turner II. 1992. "Human Population Growth and Global Land-Use/Cover Change." *Annual Review of Ecological Systems* 23: 39-61.
- Mikesell, R.F. 1988. "The Changing Demand for Industrial Raw Materials." Pp. 139-166 in *Growth, Exports and Jobs in a Changing World Economy: Agenda 1988*, by J.W. Sewell, S.K.R. Tucker et al. U.W.-Third World Policy Perspectives No. 9. New Brunswick, NJ: Transaction Books.
- Moore, S. 1992. "So Much for 'Scarce Resources'." *The Public Interest*, No. 106 (Winter): 97-107.
- Moore, S. 1995. "The Coming Age of Abundance." Pp. 109-139 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Murton, B.J. 1980. "South Asia." Pp. 67-99 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- Norgaard, R.B. 1990. Economic Indicators of Resource Scarcity: A Critical Essay." *Journal of Environmental Economics and Management* 19 (1) 19-25.
- Organization for Economic Cooperation and Development. 1994. *World Energy Outlook, 1994 Edition*. Washington, DC: OECD.
- Peterson, U. and R.S. Maxwell. 1979. "Historical Mineral Production and Price Trends." *Mining Engineering* 31: 25-34.
- Pirages, D.C. and P.R. Ehrlich. 1974. *Ark II: Social Response to Environmental Imperatives*. San Francisco: W.H. Freeman.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Methuen.
- Repetto, R. 1987. "Population, Resources, Environment: An Uncertain Future." *Population Bulletin* 42 (April).
- Ridker, R.G. 1979. "Resource and Environmental Consequences of Population and Economic Growth." Pp. 99-123 in *World Population and Development: Challenges and Prospects*, ed. P.M. Hauser. Syracuse, NY: Syracuse University Press.
- Sedjo, R.A. and K.S. Lyon. 1990. *The Long-Term Adequacy of World Timber Supply*. Washington, DC: Resources for the Future.
- Shiklomanov, I.A. 1993. "World Fresh Water Resources." Pp. 13-24 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Simon, J.L. 1981a. "Resources, Population, Environment: An Oversupply of False Bad News." *Science* 208 (27 July): 1431-1437.
- Simon, J.L. 1981b. "Global Confusion, 1980: A Hard Look at the Global 2000 Report." *The Public Interest* 62 (Winter): 3-21.

- Simon, J.L. and H. Kahn. 1984. "Introduction." Pp. 1-49 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Smith, V.K. 1980. "The Evaluation of Natural Resource Adequacy: Elusive Quest or Frontier of Economic Analysis." *Land Economics* 56 (3): 257-298.
- Starr, C., M.F. Searl, and S. Alpert. 1992. "Energy Sources: A Realistic Outlook." *Science* 256 (15 May): 981-987.
- Steinhart, J. 1980. "Availability of Mineral Resources." Pp. 35-75 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Stern, E. and W. Tims. 1976. "The Relative Bargaining Strengths of the Developing Countries." Pp. 6-50 in *Changing Resource Problems of the Fourth World*, ed. R.G. Ridker. Washington, DC: Resources for the Future.
- United Nations Environment Programme. 1987. *Environmental Data Report*. Oxford: Basil Blackwell.
- United Nations Environment Programme. 1991. *Environmental Data Report: 1991/92*. Third Edition. Oxford: Basil Blackwell.
- Whitney, J. 1980. "East Asia." Pp. 101-129 in *World Systems of Traditional Resource Management*, ed. G.A. Klee. London: Edward Arnold.
- World Conservation Monitoring Centre. 1992. *Global Biodiversity: Status of the Earth's Living Resources*. London: Chapman and Hall.
- World Resources Institute and International Institute for Environment and Development. 1986. *World Resources 1986*. New York: Basic Books.
- World Resources Institute, International Institute for Environment and Development, and United Nations Environment Programme. 1988. *World Resources 1988-89*. New York: Basic Books.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1990. *World Resources 1990-91*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1992. *World Resources 1992-93*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1994. *World Resources 1994-95*. New York: Oxford University Press.

C. Resource Issues I: Non-Fuel Minerals and Energy

- Al-Wattari, A. 1980. "The Case of Petroleum." Pp. 205-251 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Auty, R.M. 1990. *Resource-Based Industrialization: Sowing the Oil in Eight Developing Countries*. New York: Oxford University Press.
- Banerjee, S., T. Das, J. Roy, and D. Chakraborty. 1992. "Population Growth, Energy Utilisation Pattern and Environmental Degradation: A Micro Study." *Demography India* 21 (2): 281-290.
- Barham, B., S. Bunker, and D. O'Hearn (eds.) 1995. *States, Firms, and Raw Materials: The Political Economy and Ecology of the World Aluminum Industry*. Madison: University of Wisconsin Press.
- Barney, G.O., et al. 1980. *The Global 2000 Report to the President*. Vol. II: *The Technical Report*. Washington, DC: U.S. Government Printing Office.
- Bass, H.H. et al. (eds.) 1994. *Energy and Sustainable Development*. Boulder, CO: Westview Press.
- Batliwala, S. and A.K. Reddy. 1994. "Energy Consumption and Population." Pp. 93-102 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Beckmann, P. 1984a. "Coal." Pp. 428-438 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Beckmann, P. 1984b. "Solar Energy and Other 'Alternative' Energy Sources." Pp. 415-427 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Bennett, J.T. and W.E. Williams. 1981. *Strategic Minerals: The Economic Impact of Supply Disruptions*. Washington, DC: Heritage Foundation.
- Bohi, D.R. and J. Darmstadter. 1994. "Twenty Years after the Energy Crisis: What Lessons Were Learned?" *Resources*, No. 116 (Summer): 16-20.
- Boulding, K.E. 1974. "The Social System and the Energy Crisis." *Science* 184: 255-257.
- Brown, L.R. 1984. "Reducing Dependence on Oil." Pp. 35-52 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Chandler, W.U. 1984. "Recycling Materials." Pp. 95-114 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Clark, J.G. 1990. *The Political Economy of World Energy: A Twentieth Century Perspective*. Chapel Hill: University of North Carolina Press.
- Cottrell, F. 1955. *Energy and Society: The Relation between Energy, Social Change, and Economic Development*. New York: McGraw-Hill.

- Dahl, C. 1992. "A Survey of Energy Demand Elasticities for the Developing World." *Journal of Energy and Development* 18 (Autumn): 1-47.
- Darmstadter, J. and R.W. Fri. 1992. "Interconnections Between Energy and the Environment: Global Challenges." *Annual Review of Energy and the Environment* 17: 45-76.
- Davidson, O.R. 1992. "Energy Issues in Sub-Saharan Africa: Future Directions." *Annual Review of Energy and the Environment* 17: 359-403.
- de Montalembert, M.R. and J. Clement. 1983. *Fuelwood Supplies in the Developing Countries*. FAO Forestry Paper No. 42. Rome: United Nations Food and Agricultural Organization.
- Dorian, J.P. 1994. *Minerals, Energy, and Economic Development in China*. Oxford: Clarendon Press.
- Ebel, R.E. 1996. *Energy Choices in the Near Abroad: The Haves and Have-nots Face the Future*. Boulder, CO: Westview Press.
- Eckholm, E. 1975. *The Other Energy Crisis: Firewood*. Worldwatch Paper No. 1. Washington, DC: Worldwatch Institute.
- Eckholm, E., G. Foley, G. Bernard, and M. Timberlake. 1984. *Fuelwood: The Energy Crisis that Won't Go Away*. London: Earthscan.
- Edmonds, J. and J.M. Reilly. 1985. *Global Energy: Assessing the Future*. New York: Oxford University Press.
- Eyre, S.R. 1978. *The Real Wealth of Nations*. New York: St. Martins Press.
- Flavin, C. 1982. *Electricity from Sunlight: The Future of Photovoltaics*. Worldwatch Paper No. 52. Washington, DC: Worldwatch Institute.
- Flavin, C. 1983. *Nuclear Power: The Market Test*. Worldwatch Paper No. 57. Washington, DC: Worldwatch Institute.
- Flavin, C. 1984. *Electricity's Future: The Shift to Efficiency and Small-Scale Power*. Worldwatch Paper No. 61. Washington, DC: Worldwatch Institute.
- Flavin, C. 1985. *World Oil: Coping with the Dangers of Success*. Worldwatch Paper No. 66. Washington, DC: Worldwatch Institute.
- Flavin, C. 1986. *Electricity for a Developing World: New Directions*. Worldwatch Paper No. 70. Washington, DC: Worldwatch Institute.
- Flavin, C. and N. Lenssen. 1994. *Powering the Future: Blueprint for a Sustainable Electricity Industry*. Worldwatch Paper No. 119. Washington, DC: Worldwatch Institute.
- Frederick, K.D. 1976. "Energy Use and Agricultural Production in Developing Countries." Pp. 90-123 in *Changing Resource Problems of the Fourth World*, ed. R.G. Ridker. Washington, DC: Resources for the Future.
- Geller, H.S. and D. Zylberstajin. 1991. "Energy-Intensity Trends in Brazil." *Annual Review of Energy and the Environment* 17: 179-203.

- Gleick, P.H. 1993. "Water and Energy." Pp. 67-79 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Gleick, P.H. 1994. "Water and Energy." *Annual Review of Energy and the Environment* 19: 267-299.
- Goldemberg, J. 1992. "Energy, Technology, Development." *Ambio* 21 (1): 14-17.
- Goldemberg, J. 1995. "Energy Needs in Developing Countries and Sustainability." *Science* 269 (25 August): 1058-1059.
- Goldemberg, J., T.B. Johansson, A.K.N. Reddy, and R.H. Williams. 1987. *Energy for Development*. Washington, DC: World Resources Institute.
- Haglund, D.G. 1986. "The New Geopolitics of Minerals: An Inquiry into the Changing International Significance of Strategic Minerals." *Political Geography Quarterly* 5: 221-240.
- Håmsø, B., A. Mashayekhi, and H. Razavi. 1994. "International Gas Trade --- Potential Major Projects." *Annual Review of Energy and the Environment* 19: 37-73.
- Hayes, D. 1976. *Nuclear Power: The Fifth Horseman*. Worldwatch Paper No. 6. Washington, DC: Worldwatch Institute.
- Hayes, D. 1977a. *Energy: The Solar Prospect*. Worldwatch Paper No. 11. Washington, DC: Worldwatch Institute.
- Hayes, D. 1977b. *Energy for Development: Third World Options*. Worldwatch Paper No. 15. Washington, DC: Worldwatch Institute.
- Hoagland, W. 1995. "Solar Energy." *Scientific American* 273 (September): 136-139.
- Holdren, J.P. 1990. "Energy in Transition." *Scientific American* 263 (September): 109-115.
- Holdren, J.P. and P.K. Pauchri. 1992. "Energy." Pp. 103-118 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Hoyle, R. 1993. "The New Energy Equation." Pp. 571-600 in *Gale Environmental Almanac*, ed. R. Hoyle. Detroit: Gale Research, Inc.
- Humphrey, C.R. and F.R. Buttler. 1982. *Environment, Energy, and Society*. Belmont, CA: Wadsworth.
- Hurth, H.P. 1995. "Fusion." *Scientific American* 273 (September): 140-143.
- International Institute for Environment and Development and World Resources Institute. 1987. *World Resources 1987*. New York: Basic Books.
- Jiang Zhenping. 1994. "Energy Efficiency in China: Past Experience and Future Prospects." Pp. 193-197 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.

- Kahane, A. 1990. "World Electricity and Gas Industries: Pressures for Structural Change." *Annual Review of Energy* 15: 245-253.
- Kammen, D.M. 1995. "Cookstoves for the Developing World." *Scientific American* 273 (July): 64-67.
- Karekezi, S. 1994. "Disseminating Renewable Energy Technologies in Sub-Saharan Africa." *Annual Review of Energy and the Environment* 19: 387-421.
- King, J. and M. Slesser. 1994. "The Natural Philosophy of Natural Capital: Can Solar Energy Substitute?" Pp. 139-163 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Krapels, E.N. 1993. "The Commanding Heights: International Oil in a Changed World." *International Affairs* 69 (1): 71-88.
- Lenssen, N. 1992. *Empowering Development: The New Energy Equation*. Worldwatch Paper No. 111. Washington, DC: Worldwatch Institute.
- Lenssen, N. 1993. "Providing Energy in Developing Countries." Pp. 101-119 in *State of the World 1993*, by L.R. Brown et al. New York: W.W. Norton.
- Levine, M.D., F. Liu, and J.E. Sinton. 1992. "China's Energy System: Historical Evolution, Current Issues, and Prospects." *Annual Review of Energy and the Environment* 17: 405-435.
- Lovins, A.B. 1991. "Energy, People, and Industrialization." Pp. 95-124 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Lovring, T.S. 1968. "Non-Fuel Mineral Resources in the Next Century." *Texas Quarterly* (Summer): 127-147.
- MacDonald, J. 1990. "The Future of Methane as an Energy Resource." *Annual Review of Energy* 15: 53-83.
- MacGregor, I.D. 1975. "Natural Distribution of Metals and Some Economic Effects." *Annals of the American Academy of Political and Social Science* 420 (July): 31-44.
- Madhab, J. 1987. "Energy and Economic Development: Experience and Issues in Developing Asia." *Asian Development Review* 5 (1): 61-82.
- Meyers, S. and L. Schipper. 1992. "World Energy Use in the 1970s and 1980s: Exploring the Changes." *Annual Review of Energy and the Environment* 17: 463-505.
- Moss, R. and W. Morgan. 1981. *Fuelwood and Rural Energy Production and Supply in the Humid Tropics*. Dublin: Tycooly International.
- Munasinghe, M. 1992. "Sustainable Power for Latin America and the Caribbean: Pricing Policy and Related Options." *Journal of Energy and Development* 18 (Autumn): 123-152.

- Nordhaus, W.D. 1979. *The Efficient Uses of Energy Resources*. New Haven, CT: Yale University Press.
- O'Dell, P.R. 1986. "Draining the World of Energy." Pp. 68-88 in *A World in Crisis: Geographical Perspectives*, eds. R.J. Johnston and P.J. Taylor. Oxford: Basil Blackwell.
- O'Keefe, P. and P. Raskin. 1985. "Fuelwood in Kenya: Crisis and Opportunity." *Ambio* 14 (4/5): 220-224.
- Organization for Economic Cooperation and Development. 1994. *World Energy Outlook, 1994 Edition*. Washington, DC: OECD.
- Peet, J. 1992. *Energy and the Ecological Economics of Sustainability*. Washington, DC: Island Press.
- Perlack, R.D., M. Russell, and Z. Shen. 1991. "Energy and Environmental Policy in China." *Annual Review of Energy and the Environment* 16: 205-233.
- Pimentel, D., M. Herdendorf, S. Eisenfeld, L. Olander, M. Carroquino, C. Corson, J. McDade, Y. Chung, W. Cannon, J. Roberts, L. Bluman, and J. Gregg. 1994. "Achieving a Secure Energy Future: Environmental and Economic Issues." *Ecological Economics* 9 (April): 201-219.
- Pirages, D. 1978. *The New Context for International Relations: Global Ecopolitics*. North Scituate, MA: Duxbury.
- Pirages, D. 1989. *Global Technopolitics: The International Politics of Technology and Resources*. Pacific Grove, CA: Brooks/Cole.
- Qiu Daxiong, Gu Shuhua, Liange Baofen, and Wang Gehua. 1990. "Diffusion and Innovation in the Chinese Biogas Program." *World Development* 18 (4): 555-563.
- Rask, K. 1995. "The Social Costs of Ethanol Production in Brazil, 1978-1987." *Economic Development and Cultural Change* 43 (April): 627-649.
- Raskin, P. and M. Lazarus. 1991. "Regional Energy Development in South Africa: Great Potential, Great Constraints." *Annual Review of Energy and the Environment* 17: 145-178.
- Rasmuson, M. and R. Zetterstrom. 1992. "World Population, Environment and Energy Demands." *Ambio* 21 (1): 70-74.
- Razavi, H. and F. Fesharaki. 1991. "Electricity Generation in Asia and the Pacific: Historical and Projected Patterns of Demand and Supply." *Annual Review of Energy and the Environment* 16: 275-294.
- Reddy, A.K.N. 1985. "Energy Issues and Opportunities." Pp. 363-395 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Routledge.
- Rosa, E.A., G.E. Machlis, and K.M. Keating. 1988. "Energy and Society." *Annual Review of Sociology* 14: 149-172.

- Rumani, K.V., P. Hills, and G. George (eds.). 1992. *Burning Questions: Environmental Limits to Energy Growth in Asian-Pacific Countries During the 1990s*. Kuala Lumpur: Asian and Pacific Development Centre.
- Sathaye, J. and S. Tyler. 1991. "Household Energy Use in China, India, the Philippines, Thailand, and Hong Kong." *Annual Review of Energy and the Environment* 16: 295-335.
- Sayalath, P. 1995. "The Essential Role of Energy for Rural Development in the Lao PDR." *Asian Journal of Environmental Management* 3 (May): 1-6.
- Schipper, L. and S. Meyers. 1992. *Energy Efficiency and Human Activity: Past Trends and Future Prospects*. Cambridge: Cambridge University Press.
- Shafer, M. 1982. "Mineral Myths." *Foreign Policy* 47: 154-171.
- Sharbaugh, H.R. 1975. "Petroleum and Energy." *Annals of the American Academy of Political and Social Science* 420 (July): 86-97.
- Simmons, I.G. 1974. *The Ecology of Natural Resources*. London: Edward Arnold.
- Singer, F.S. 1984. "World Demand for Oil." Pp. 339-386 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Smil, V. 1976. *China's Energy*. New York: Praeger.
- Smil, V. 1981. "Energy Development in China." *Energy Policy* 9 (2): 113-126.
- Smil, V. 1988. *Energy in China's Modernization: Advances and Limitations*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1991. *General Energetics*. New York: Wiley.
- Smil, V. 1993. *China's Environmental Crisis*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1994. *Energy in World History*. Boulder, CO: Westview Press.
- Smith, N. 1981. *Wood: An Ancient Fuel with a New Future*. Worldwatch Paper No. 42. Washington, DC: Worldwatch Institute.
- Soussan, J. 1988. *Primary Resources and Energy in the Third World*. London: Routledge.
- Steinhart, J. 1980. "Availability of Mineral Resources." Pp. 35-75 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Stern, P.C. and E. Aronson (eds.) 1994. *Energy Use: The Human Dimension*. Washington, DC: National Research Council.
- Sterner, T. 1991. "Nuclear Energy and Sustainability in Latin America." Pp. 97-115 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Strout, A. 1976. "Energy and the Less Developed Countries: Needs for Additional Research." Pp. 124-158 in *Changing Resource Problems of the Fourth World*, ed. R.G. Ridker. Washington, DC: Resources for the Future.

- Takeuchi, K. and B. Vai. 1975. "Commodity Shortages and Changes in World Trade." *Annals of the American Academy of Political and Social Science* 420 (July): 46-58.
- Tanzer, M. 1980. *The Race for Resources: Continuing Struggles over Fuels and Minerals*. New York: Monthly Review Press.
- Vogely, W.A. 1985. "Nonfuel Minerals and the World Economy." Pp. 457-473 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Whitney, H. 1987. "Impact of Fuelwood Use on Environmental Degradation in the Sudan." Pp. 115-143 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Winberg, A.R. 1979. "Resource Politics: The Future of International Markets for Raw Materials." Pp. 178-194 in *The Global Predicament: Ecological Perspectives on World Order*, eds. D.W. Orr and M.S. Soroos. Chapel Hill, NC: University of North Carolina Press.
- Winteringham, F.P.W. 1992. *Energy Use and the Environment*. Boca Raton, FL: Lewis Publishers.
- World Energy Council. 1993. *Energy for Tomorrow's World*. New York: St. Martin's Press.
- World Resources Institute and International Institute for Environment and Development. 1986. *World Resources 1986*. New York: Basic Books.
- World Resources Institute, International Institute for Environment and Development, and United Nations Environment Programme. 1988. *World Resources 1988-89*. New York: Basic Books.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1990. *World Resources 1990-91*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1992. *World Resources 1992-93: Toward Sustainable Development*. New York: Oxford University Press.
- World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme. 1994. *World Resources 1994-95: People and the Environment*. New York: Oxford University Press.
- Young, J.E. 1992a. *Mining the Earth*. Worldwatch Paper No. 109. Washington, DC: Worldwatch Institute.
- Young, J.E. 1992b. "Mining the Earth." Pp. 83-99 in *State of the World 1992*. New York: W.W. Norton.

D. Resource Issues II: Land, Water, Forests, and Biodiversity

- Adger, W.N., K. Brown, and D. Moran. 1995. "Total Economic Value of Forests in Mexico." *Ambio* 24 (5): 286-296.
- Agarwal, B. 1986. *Cold Hearths and Barren Slopes: The Fuelwood Crisis in the Third World*. London: Zed Books.
- Agarwal, B. 1994. "Gender, Resistance and Land: Interlinked Struggles Over Resources and Meanings in South Asia." *Journal of Peasant Studies* 22 (October): 81-125.
- Agbo, V., N. Sokpon, J. Hough, and P.C. West. 1993. "Population-Environment Dynamics in a Constrained Ecosystem in Northern Benin." Pp. 283-303 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Allen, J.C. and D.F. Barnes. 1985. "The Causes of Deforestation in Developing Countries." *Annals of the Association of American Geographers* 75 (June): 163-184.
- Altieri, M.A., with contributions by J.C. Farrell, S.B. Hecht, M. Liebman, F. Magdoff, B. Murphy, R.B. Norgaard, and T.O. Sikor. 1995. *Agroecology: The Science of Sustainable Agriculture*. Second Edition. Boulder, CO: Westview Press.
- Anderson, A.B. 1990. "Deforestation in Amazonia: Dynamics, Causes, and Alternatives." Pp. 1-123 in *Alternatives to Deforestation: Steps to Sustainable Use of the Amazon Rain Forest*, ed. A.B. Anderson. New York: Columbia University Press.
- Anderson, D. and R. Fishwick. 1984. *Fuelwood Consumption and Deforestation in African Countries*. World Bank Working Paper No. 704. Washington, DC: The World Bank.
- Anderson, T.L. 1995. "Water Options for the Blue Planet." Pp. 267-294 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Arroyo, M.T.K., P.H. Raven, and J. Sarukhan. 1992. "Biodiversity." Pp. 205-219 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Avery, D. 1995. "Saving the Planet with Pesticides: Increasing Food Supplies While Preserving the Earth's Biodiversity." Pp. 49-82 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Ayibotele, N.B. and M. Falkenmark. 1992. "Freshwater Resources." Pp. 187-203 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-

- Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Bailey, C., S. Jentoft, and P. Sinclair (eds.). 1996. *Aquacultural Development: Social Dimensions of an Emerging Industry*. Boulder, CO: Westview Press.
- Bajracharya, D. 1983. "Fuel, Food or Forest? Dilemmas in a Nepali Village." *World Development* 11 (December): 1057-1074.
- Barbier, E.B. 1989. "Cash Crops, Food Crops, and Sustainability: The Case of Indonesia." *World Development* 17 (6): 879-895.
- Barbier, E.B. 1993. "Economic Aspects of Tropical Deforestation in Southeast Asia." *Global Ecology and Biogeography Letters* 3 (4-6): 215-234.
- Barbier, E.B., J.C. Burgess, and A. Markandya. 1990. "The Economics of Tropical Deforestation." *Ambio* 20 (2): 55-58.
- Barkin, D. 1992. "Rural Development Effects." Pp. 235-247 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Barlow, C. 1991. "Developments in Plantation Agriculture and Smallholder Cash-crop Production." Pp. 85-103 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Barney, G.O., et al. 1980. *The Global 2000 Report to the President*. Vol. II: *The Technical Report*. Washington, DC: U.S. Government Printing Office.
- Barracough, S.L. and M.F. Scott. 1987. *The Rich Have Already Eaten: Roots of Catastrophe in Central America*. Transnational Issues #3. Amsterdam: Transnational Institute.
- Barrow, C.J. 1987. *Water Resources and Agricultural Development in the Tropics*. Essex: Longman Scientific & Technical.
- Bassett, T.J. 1988. "The Political Ecology of Peasant-Herder Conflicts in the Northern Ivory Coast." *Annals of the Association of American Geographers* 78 (3): 453-472.
- Batie, S.S. and D.B. Taylor. 1990. "Cropland and Soil Sustainability." Pp. 56-77 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Bautista, G.M. 1990. "The Forestry Crisis in the Philippines." *The Developing Economies* 28 (1): 67-94.
- Bedoya, G.E. 1987. "Intensification and Degradation in the Agricultural Systems of the Peruvian Upper Jungle: The Upper Huallaga Case." Pp. 290-315 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Bernal, P. and P.M. Holligan. 1992. "Marine and Coastal Systems." Pp. 157-171 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-

- Lefevre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Bilsborrow, R.E. 1987. "Population Pressures and Agricultural Development in Developing Countries: a Conceptual Framework and Recent Evidence." *World Development* 15 (2): 183-203.
- Bilsborrow, R.E. 1992. "Population Growth, Internal Migration, and Environmental Degradation in Rural Areas of Developing Countries." *European Journal of Population* 8 (2): 125-148.
- Bilsborrow, R.E. and P.F. Delargy. 1991. "Land Use, Migration, and Natural Resource Deterioration: The Experience of Guatemala and the Sudan." Pp. 125-147 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Bilsborrow, R.E. and M. Geores. 1992. *Rural Population Dynamics and Agricultural Development: Issues and Consequences Observed in Latin America*. Ithaca, NY: Cornell University Institute for Food, Agriculture, and Development.
- Bilsborrow, R.E. and M. Geores. 1994. "Population Change and Agricultural Intensification in Developing Countries." Pp. 171-207 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Bilsborrow, R.E. and H. Okoth-Ogendo. 1992. "Population Driven Changes in Land Use in Developing Countries." *Ambio* 21 (1): 37-45.
- Binswanger, H.P. 1991. "Brazilian Policies that Encourage Deforestation in the Amazon." *World Development* 19 (7): 821-829.
- Biot, Y., M. Sessay, and M. Stocking. 1989. "Assessing the Suitability of Agricultural Land in Botswana and Sierra Leone." *Land Degradation and Rehabilitation* 1: 263-278.
- Biswas, A.K. 1993. "Land Resources for Sustainable Agricultural Development." *Ambio* 22 (8): 556-560.
- Biswas, M.R. 1994. "Agriculture and Environment: A Review, 1972-1992." *Ambio* 23 (3): 192-197.
- Black, R. 1994. "Forced Migration and Environmental Change: The Impact of Refugees on Host Environments." *Journal of Environmental Management* 42 (September): 261-277.
- Blaikie, P. 1985. *The Political Economy of Soil Erosion in Developing Countries*. New York: Longman.
- Blaikie, P. 1988. "The Explanation of Land Degradation in Nepal." Pp. 132-158 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.

- Blaikie, P., H. Brookfield, et al. 1987. *Land Degradation and Society*. London: Methuen.
- Bohle, H.G. and F. Krüger. 1993. "Perspectives of Geographical Food Crisis Research." *Applied Geography and Development* 42: 98-109.
- Bongaarts, J. 1994. "Can the Growing Human Population Feed Itself?" *Scientific American* 270 (March): 36-42.
- Booth, A. 1991. "Regional Aspects of Indonesian Agricultural Growth." Pp. 36-60 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Boserup, E. 1965. *The Conditions of Agricultural Growth: The Economics of Agrarian Change Under Population Pressure*. Chicago: University of Chicago Press.
- Botkin, D.B. and L.M. Talbot. 1992. "Biological Diversity and Forests." Pp. 47-74 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Bowman, D.M.J.S. 1994. "Tropical Rain forests." *Progress in Physical Geography* 18 (4): 575-581.
- Bowonder, B. 1985. "Deforestation in Developing Countries." *Journal of Environmental Systems* 15 (2): 171-191.
- Box, T.W. 1990. "Rangelands." Pp. 101-120 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Bradley, P.N. 1986. "Food Production and Distribution --- and Hunger." Pp. 89-106 in *A World in Crisis? Geographical Perspectives*, eds. R.J. Johnston and P.J. Taylor. Oxford: Basil Blackwell.
- Brechin, S.R., S.C. Surapaty, L. Heydir, and E. Roflin. 1993. "Protected Area Deforestation in South Sumatra, Indonesia." Pp. 225-251 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Brockett, C.D. 1987. "Economic Security in the Countryside: The Impact of Agrarian Change and Public Policy in Honduras." Pp. 15-47 in *Agrarian Reform in Reverse: The Food Crisis in the Third World*, eds. B.A. Yesilada, C.D. Brockett, and B. Drury. Boulder, CO: Westview Press.
- Brockett, C.D. 1988. *Land, Power, and Poverty: Agrarian Transformation and Political Conflict in Central America*. London: Allen & Unwin.
- Brokensha, D. and B. Riley. 1988. "Forest, Foraging, Fences and Fuel in a Marginal Area of Kenya." Pp. 102-105 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Brookfield, H. and Y. Byron. 1990. "Deforestation and Timber Extraction in Borneo and the Malay Peninsula: The Record Since 1965." *Global Environmental Change* 1 (December): 42-56.

- Browder, J.O. 1988. "The Social Costs of Rainforest Destruction: A Critique and Economic Analysis of the 'Hamburger Debate'." *Interciencia* 13 (3): 115-120.
- Bowder, J.O. 1990. "Development Alternatives for Tropical Rainforests." Pp. 111-133 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- Brown, L.R. 1978. *The Worldwide Loss of Cropland*. Worldwatch Paper No. 21. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1980. *Food or Fuel: New Competition for the World's Cropland*. Worldwatch Paper No. 35. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1983. "Global Food Prospects: The Shadow of Malthus." Pp. 175-187 in *Global Resources: Challenges of Interdependence*, ed. M.I. Glassner. New York: Praeger.
- Brown, L.R. 1984. "Conserving Soils." Pp. 53-73 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1985. "Reducing Hunger." Pp. 23-41 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1987. "Sustaining World Agriculture." Pp. 122-138 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1988. *The Changing World Food Prospect: The Nineties and Beyond*. Worldwatch Paper No. 85. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1989. "Reexamining the World Food Prospect." Pp. 41-58 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1995. *Who Will Feed China? Wake-Up Call for a Small Planet*. New York: W.W. Norton.
- Brown, L.R. and E.C. Wolf. 1984. *Soil Erosion: Quiet Crisis in the World Economy*. Worldwatch Paper No. 60. Washington, DC: Worldwatch Institute.
- Bruce, J.W. and L. Fortmann. 1988. "Why Land Tenure and Tree Tenure Matter: Some Fuel for Thought." Pp. 1-9 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Bruce, J., L. Fortmann, and C. Nhira. 1993. "Tenures in Transition, Tenures in Conflict: Examples from the Zimbabwe Social Forest." *Rural Sociology* 58 (Winter): 626-642.
- Brush, S. 1987. "Diversity and Change in Andean Agriculture." Pp. 271-289 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.

- Bunker, S.G. 1984. "Modes of Extraction, Unequal Exchange, and the Progressive Underdevelopment of an Extreme Periphery." *American Journal of Sociology* 89 (March): 1017-1064. [Also see "R.W. Volk, "Comment on Bunker," *Ibid* 91 (May 1986), pp. 1431-1437 and S.G. Bunker, "On Values in Modes and Models: Reply to Volk," *Ibid* 91 (May 1986), pp. 1437-1444.]
- Bunker, S.G. 1985. *Underdeveloping the Amazon: Extraction, Unequal Exchange, and the Failure of the Modern State*. Urbana: University of Illinois Press.
- Burgess, J.C. 1993. "Timber Production, Timber Trade and Tropical Deforestation." *Ambio* 22 (2/3): 136-143.
- Buringh, P. 1987. "Agricultural Land Use in Space and Time." Pp. 9-43 in *Land Transformation in Agriculture*, eds. M. Wolman and F. Fournier. New York: Wiley.
- Burley, F.W. and P.T. Hazlewood. 1988. "Tropical Forests: A Resource in Jeopardy." Pp. 1-24 in *The Earth's Fragile Systems: Perspectives on Global Change*, eds. T. Kristensen and J.P. Paludan. Boulder, CO: Westview Press. [Also see comments in *Ibid*, pp. 25-29].
- Burt, B. 1994. "Land in Kwar'ae and Development in Solomon Islands." *Oceania* 64 (June): 317-335.
- Carpenter, S.R., S.G. Fisher, N.B. Grim, and J.F. Kitchell. 1992. "Global Change and Freshwater Ecosystems." *Annual Review of Ecological Systems* 23: 119-139.
- Castro, A.P. 1988. "Southern Mount Kenya and Colonial Forest Conflicts." Pp. 33-55 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Cernea, M. 1981. *Land Tenure Systems and Social Implications of Forestry Development Programs*. World Bank Staff Working Paper No. 452. Washington, DC: The World Bank.
- Chambers, R. and M. Leach. 1989. "Trees as Savings and Security for the Rural Poor." *World Development* 17 (3): 329-342.
- Chapman, D. and R. Barker. 1991. "Environmental Protection, Resource Depletion, and the Sustainability of Developing Country Agriculture." *Economic Development and Cultural Change* 39 (July): 723-737.
- Chattopadhyay, S. 1985. "Deforestation in Parts of Eastern Ghats Region (Kerala), India." *Journal of Environmental Management* 20: 219-230.
- Chaturvedi, A.N. 1994. "Sequestration of Atmospheric Carbon in India's Forests." *Ambio* 23 (7): 460-461.
- Clarke, R. 1991. *Water: The International Crisis*. London: Earthscan Publications.
- Clay, D.C. and L.A. Lewis. 1990. "Land Use, Soil Loss, and Sustainable Agriculture in Rwanda." *Human Ecology* 18 (2): 147-161.

- Clay, J.W., S. Steingraber, and P. Niggli. 1988. *The Spoils of Famine: Ethiopian Famine Policy and Peasant Agriculture*. Cultural Survival Report 25. Cambridge, MA: Cultural Survival, Inc.
- Cleaver, K.M. and A.S. Gotz. 1991. *The Population, Agriculture and Environment Nexus in Sub-Saharan Africa*. World Bank Discussion Paper, No. 6. Washington, DC: The World Bank.
- Cline-Cole, R.A., H.A.C. Main, and J.E. Nichol. 1990. "On Fuelwood Consumption, Population Dynamics and Deforestation in Africa." *World Development* 18 (4): 513-527.
- Collins, M. (ed.) 1990. *The Last Rainforests: A World Conservation Atlas*. New York: Oxford University Press.
- Conelly, W.T. 1994. "Population Pressure, Labor Availability, and Agricultural Intensification: The Decline of Farming on Rusing Island, Kenya." *Human Ecology* 22 (June): 131-144.
- Covich, A.P. 1993. "Water and Ecosystems." Pp. 40-55 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Coxhead, I. and S. Jayasuriya. 1994. "Technical Change in Agriculture and Land Degradation in Developing Countries: A General Equilibrium Analysis." *Land Economics* 70 (February): 20-37.
- Cropper, M. and C. Griffiths. 1994. "The Interaction of Population Growth and Environmental Quality." *American Economic Review* 84 (2): 250-254.
- Crosson, P.R. 1992. "Sustainable Agriculture." *Resources* 106 (Winter): 14-17.
- Cruz, W. and M. Cruz. 1990. "Population Pressure and Deforestation in the Philippines." *ASEAN Economic Bulletin* 7 (2): 200-212.
- Das, I. 1994. "Evaluating Biodiversity: The Batu Apoi Experience." *Ambio* 23 (4/5): 238-242.
- Deacon, R.T. 1994. "Deforestation and the Rule of Law in a Cross-Section of Countries." *Land Economics* 70 (November): 414-430.
- Deneven, W.M. 1988. "Causes of Deforestation and Forest and Woodland Degradation in Tropical Latin America." Pp. 168-171 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Deneven, W.M. 1989. "The Geography of Fragile Lands in Latin America." Pp. 11-24 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- DeWalt, B.R., S.C. Stonich, and S.L. Hamilton. 1993. "Honduras: Population, Inequality, and Resource Destruction." Pp. 106-123 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.

- Deweese, P.A. 1989. "The Fuelwood Crisis Reconsidered: Observations on the Dynamics of Abundance and Scarcity." *World Development* 17 (8): 1159-1172.
- Dial, K.P. and J.M. Marzluff. 1988. "Are the Smallest Organisms the Most Diverse?" *Ecology* 69 (5): 1620-1624.
- Dial, K.P. and J.M. Marzluff. 1990. "Life History Correlates of Taxonomic Diversity." *Ecology* 72 (2): 428-439.
- Diamond, J.M. 1989. "The Present, Past and Future of Human-Caused Extinction." *Philosophical Transactions of the Royal Society of London, Series B*, 325: 469-477.
- Donner, W. 1987. *Land Use and Environment in Indonesia*. Honolulu: University of Hawaii Press.
- Döös, B.R. 1994. "Environmental Degradation, Global Food Production, and Risk for Large-Scale Migration." *Ambio* 23 (2/3): 124-130.
- Dorner, P. and W.C. Thiesenhusen. 1990. "Selected Land Reforms in East and Southeast Asia: Their Origins and Impacts." *Asian-Pacific Economic Literature* 4 (March): 65-95.
- Douglas, I., T. Greer, K. Bidin, and M. Spilibury. 1993. "Impacts of Rainforest Logging on River Systems and Communities in Malaysia and Kalimantan." *Global Ecology and Biogeography Letters* 3 (4-6): 245-252.
- Downing, T.E., S.B. Hecht, H.A. Pearson, and C. Garcia-Downing (eds.) 1992. *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*. Boulder, CO: Westview Press.
- Downs, R.E. and S. Reyna (eds.) 1988. *Land and Society in Contemporary Africa*. Hanover, NH: New England Universities Press.
- Dryzek, J.D. and A.S. Glenn. 1987. The Political Economy of Deforestation in Costa Rica." Pp. 203-215 in *A Multidisciplinary Approach to Renewable Energy in Developing Countries*, eds. F.J. Hitzhusen and R.D. MacGregor. Columbus, OH: Horizon Books.
- Dyson, T. 1994. "Population Growth and Food Production: Global and Regional Trends." *Population and Development Review* 20 (June): 397-411.
- East-West Center. 1994. "Apocalypse When? Population Growth and Food Supply in South Asia." *Asia-Pacific Population and Policy*, No. 31 (December).
- Eckholm, E. 1975. *The Other Energy Crisis: Firewood*. Worldwatch Paper No. 1. Washington, DC: Worldwatch Institute.
- Eckholm, E. 1976. *Losing Ground: Environmental Stress and World Food Prospects*. New York: W.W. Norton.
- Eckholm, E. 1978. *Disappearing Species: The Social Challenge*. Worldwatch Paper No. 22. Washington, DC: Worldwatch Institute.
- Eckholm, E. 1979. *The Dispossessed of the Earth: Land Reform and Sustainable Development*. Worldwatch Paper No. 30. Washington, DC: Worldwatch Institute.

- Eckholm, E., G. Foley, G. Bernard, and M. Timberlake. 1984. *Fuelwood: The Energy Crisis that Won't Go Away*. London: Earthscan.
- Eder, J.F. 1990. "Deforestation and Detribalization in the Philippines: The Palawan Case." *Population and Environment* 12 (2): 99-115.
- Edmonds, R.L. 1994a. "China's Environment." Pp. 143-170 in *China Briefing*, 1994, ed. W.A. Joseph. Boulder, CO: Westview.
- Edmonds, R.L. 1994b. *Patterns of China's Lost Harmony: A Survey of the Country's Environmental Degradation and Protection*. New York: Routledge.
- Edwards, S.R. 1995. "Conserving Biodiversity: Resources for Our Future." Pp. 211-265 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Ehrlich, P.R. and A.H. Ehrlich. 1981. *Extinction: The Causes and Consequences of the Disappearance of Species*. New York: Random House.
- Ehrlich, P.R. and A.H. Ehrlich. 1992. "The Value of Biodiversity." *Ambio* 21 (3): 219-226.
- Ehrlich, P.R. and G.C. Daily. 1993. "Food Security, Population, and Environment." *Population and Development Review* 19 (March): 1-32.
- Eisner, T. 1990. "Prospecting for Nature's Chemical Riches." *Issues in Science and Technology* 6 (2): 31-34.
- Elliott, G.K. 1992. "Ecology, Economics and the End of Forestry in the Tropics." *Asian Affairs* 23 (October): 315-321.
- Ellis, J.E. and D.M. Swift. 1988. "Stability of African Pastoral Ecosystems: Alternate Paradigms and Implications for Development." *Journal of Range Management* 41 (6): 450-459.
- Eltringham, S. 1984. *Wildlife Resources and Economic Development*. New York: John Wiley and Sons.
- Engelman, R. and P. LeRoy. 1993. *Sustaining Water: Population and the Future of Renewable Water Resources*. Washington, DC: Population and Environment Program, Population Action International. [See also "Sustaining Water: An Update," 1995.]
- Evenson, R.E. 1993. "India: Population Pressure, Technology, Infrastructure, Capital Formation, and Rural Incomes." Pp. 70-97 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Eyre, L.A. 1987. "Jamaica: Test Case for Tropical Deforestation?" *Ambio* 16 (6): 338-343.
- Falkenmark, M. 1986. "Fresh Water --- Time for a Modified Approach." *Ambio* 15: 192-200.
- Falkenmark, M. 1989a. "Middle East Hydropolitics: Water Scarcity and Conflicts in the Middle East." *Ambio* 18: 350-352.

- Falkenmark, M. 1989b. "The Massive Water Scarcity Now Threatening Africa --- Why isn't It Being Addressed?" *Ambio* 18 (2): 112-118.
- Falkenmark, M. 1994a. "Landscape as Life Support Provider: Water-Related Limitations." Pp. 103-116 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Falkenmark, M. 1994b. "Water Availability as Carrying Capacity Determinant --- A New Factor in Third World Demography." Pp. 179-195 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Falkenmark, M. and R. Adiwoso Suprpto. 1992. "Population-Landscape Interactions in Development: A Water Perspective to Environmental Sustainability." *Ambio* 21 (1): 31-36.
- Falkenmark, M. and G. Lindh. 1993. "Water and Economic Development." Pp. 80-91 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Falkenmark, M. and C. Widstrand. 1992. "Population and Water Resources: A Delicate Balance." *Population Bulletin* 47 (3).
- Fearnside, P.M. 1982. "Deforestation in the Brazilian Amazon: How Fast is It Occurring?" *Interciencia* 7 (2): 82-88.
- Fearnside, P.M. 1983. "Land Use Trends in the Brazilian Amazon Region as Factors in Accelerating Deforestation." *Environmental Conservation* 10 (2): 141-148.
- Fearnside, P.M. 1984. "Land Clearing Behavior in Small Farmer Settlement Schemes in the Brazilian Amazon and Its Relation to Human Carrying Capacity." Pp. 255-271 in *Tropical Rain Forest: The Leeds Symposium*, eds. A. Chadwick and S. Sutton. Leeds, U.K.: Leeds Philosophical and Literary Society.
- Fearnside, P.M. 1985a. "Brazil's Amazon Forest and the Global Carbon Problem." *Interciencia* 10 (4): 179-186.
- Fearnside, P.M. 1985b. "Environmental Change and Deforestation in the Brazilian Amazon." Pp. 70-89 in *Change in the Amazon Basin: Man's Impact on Forests and Rivers*, ed. J. Hemming. Manchester: Manchester University Press.
- Fearnside, P.M. 1986. *Human Carrying Capacity of the Brazilian Rainforest*. New York: Columbia University Press.
- Fearnside, P.M. 1987. "Causes of Deforestation in the Brazilian Amazon." Pp. 37-53 in *The Geophysiology of Amazonia: Vegetation and Climate Interactions*, ed. R.F. Dickenson. New York: Wiley.
- Fearnside, P.M. 1988. "An Ecological Analysis of Predominant Land Uses in the Brazilian Amazon." *The Environmentalist* 8 (11): 281-300.

- Fearnside, P.M. 1989a. "Deforestation in Brazilian Amazonia: The Rates and Causes of Forest Destruction." *The Ecologist* 9 (6): 214-224.
- Fearnside, P.M. 1989b. "Extractive Reserves in Brazilian Amazonia." *BioScience* 39: 387-393.
- Fearnside, P.M. 1990a. "Deforestation in the Brazilian Amazon." Pp. 211-238 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Fearnside, P.M. 1990b. "Estimation of Human Carrying Capacity in Rainforest Areas." *Trends in Ecology and Evolution* 5 (6): 102-106.
- Fearnside, P.M. 1993. "Deforestation in Brazilian Amazonia: The Effect of Population and Land Tenure." *Ambio* 22 (8): 537-545.
- Feeny, D. 1988. "Agricultural Expansion and Forest Depletion in Thailand, 1900-1975." Pp. 112-143 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Foweraker, J. 1981. *The Struggle for Land: A Political Economy of the Amazon Frontier in Brazil from 1930 to the Present Day*. Cambridge: Cambridge University Press.
- Frederick, K.D. 1990. "Water Resources." Pp. 143-174 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- French, D. 1986. "Confronting an Unsolvable Problem: Deforestation in Malawi." *World Development* 14 (April): 531-540.
- Fisunoglu, M. and B.A. Yesilada. 1987. "Problems of Agricultural Development in Turkey." Pp. 151-179 in *Agrarian Reform in Reverse: The Food Crisis in the Third World*, eds. B.A. Yesilada, C.D. Brockett, and B. Drury. Boulder, CO: Westview Press.
- Folke, C., K.-G. Mäler, and C. Perrings. 1992. "Biodiversity Loss: An Introduction." *Ambio* 21 (3): 200.
- Food and Agriculture Organization of the United Nations (FAO). 1982. *Tropical Forest Resources*. FAO Forestry Paper No. 30. Rome: FAO.
- Food and Agriculture Organization of the United Nations (FAO). 1983a. *Fuelwood Supplies in the Developing Countries*. FAO Forestry Paper No. 42. Rome: FAO.
- Food and Agriculture Organization of the United Nations (FAO). 1983b. *Land, Food and People*. Rome: FAO.
- Food and Agriculture Organization of the United Nations (FAO). 1993. *Forest Resources Assessment 1990: Tropical Countries*. FAO Forestry Paper No. 112. Rome: FAO.

- Ford, R. and J. Brown. 1990. "Land, Resources, and People in Kenya." Pp. 121-163 in *The U.S. Interest: Resources, Growth, and Security in the Developing World*, ed. J.W. Brown. Boulder, CO: Westview Press.
- Fortmann, L. 1988. "The Tree Tenure Factor in Agroforestry with Particular Reference to Africa." Pp. 16-33 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Fortmann, L. and J.W. Bruce. (eds.) 1988. *Whose Trees? Proprietary Dimensions of Forestry*. Boulder, CO: Westview Press.
- Gadgil, M. 1990. "India's Deforestation: Patterns and Processes." *Society and Natural Resources* 3 (2): 131-143.
- Gadgil, M. and R. Guha. 1992. *This Fissured Land: An Ecological History of India*. Delhi: Oxford University Press.
- Geertz, C. 1963. *Agricultural Involvement: The Process of Ecological Change in Indonesia*. Berkeley: University of California Press.
- Ghee, L.T., and M.J. Valencia (eds.) 1991. *Conflict over Natural Resources in South-East Asia and the Pacific*. New York: Oxford University Press.
- Giampietro, M., G. Cerretelli, and D. Pimentel. 1992. "Assessment of Different Agricultural Production Practices." *Ambio* 21 (7): 451-459.
- Gilland, B. 1983. "Considerations on World Population and Food Supply." *Population and Development Review* 9 (2): 203-211.
- Gleave, B. 1994. "Population Density, Population Change, Agriculture and the Environment in Tropical Africa." Pp. 223-246 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Gleick, P.H. 1988. "The Effects of Future Climatic Changes on International Water Resources: The Colorado River, the United States, and Mexico." *Policy Sciences* 21 (1): 23-39.
- Gleick, P.H. 1993a. "An Introduction to Global Fresh Water Issues." Pp. 3-24 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Gleick, P.H. 1993b. "Water and Conflict: Fresh Water Resources and International Security." *International Security* 18 (1): 79-112.
- Gleick, P.H. 1993c. "Water and Energy." Pp. 67-79 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Gleick, P.H. (ed.) 1993d. *Water in Crisis: A Guide to the World's Fresh Water Resources*. New York: Oxford University Press.
- Gleick, P.H. 1993e. "Water in the 21st Century." Pp. 105-113 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.

- Gleick, P.H. 1994. "Water and Energy." *Annual Review of Energy and the Environment* 19: 267-299.
- Godoy, R.A. 1984. "Ecological Degradation and Agricultural Intensification in the Andean Highlands." *Human Ecology* 12 (4): 359-380.
- Godoy, R.A. 1992. "Determinants of Smallholder Commercial Tree Cultivation." *World Development* 20 (5): 713-725.
- Goldberg, E.D. 1991. "Ocean Space: Use and Protection." Pp. 221-234 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Goodman, D. and M. Redclift. 1982. *From Peasant to Proletarian: Capitalist Development and Agrarian Transitions*. New York: St. Martins.
- Goodman, D. and M. Redclift. 1991. *Refashioning Nature: Food, Ecology, and Culture*. New York: Routledge.
- Goodman, D. and M. Watts. 1994. "Reconfiguring the Rural or Forging the Divide: Capitalist Restructuring and the Global Agro-Food System." *Journal of Peasant Studies* 22 (October): 1-49.
- Gordon, W.G. 1990. "Fisheries." Pp. 205-241 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Goreau, T.J. and R.L. Hayes. 1994. "Coral Bleaching and Ocean 'Hot Spots'." *Ambio* 23 (3): 176-180.
- Goucher, C.L. 1988. "The Impact of German Colonial Rule on the Forests of Togo." Pp. 56-69 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Gould, W. 1994. "Population Growth, Environmental Stability and Migration in Western Kenya: From Malthus to Boserup?" Pp. 247-268 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Grainger, A. 1980. "The State of the World's Tropical Forests." *The Ecologist* 10 (1): 6-54.
- Grainger, A. 1993a. *Controlling Tropical Deforestation*. London: Earthscan.
- Grainger, A. 1993b. "Population as Concept and Parameter in the Modelling of Deforestation." Pp. 71-101 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Grainger, A. 1993c. *The Tropical Rainforests and Man*. New York: Columbia University Press.
- Grigg, D. 1985. *The World Food Problem 1950-1980*. Oxford: Basil Blackwell.
- Grimes, A., S. Loomis, P. Jahnige, M. Burnham, K. Onthank, R. Alarcón, W.P. Cuenca, C.C. Martinez, D. Neill, M. Balick, B. Bennett, and R. Mendelsohn. 1994. "Valuing the rain Forest: The Economic Value of Nontimber Forest Products in Ecuador." *Ambio* 23 (7): 405-410.

- Grindle, M.S. 1986. *State and Countryside: Development Policy and Agrarian Politics in Latin America*. Baltimore: The Johns Hopkins University Press.
- Grossman, L.S. 1993. "The Political Ecology of Banana Exports and Local Food Production in St. Vincent, Eastern Caribbean." *Annals of the Association of American Geographers* 83 (June): 347-367.
- Guess, G.M. 1979. "Pasture Expansion, Forestry, and Development Contradictions: The Case of Costa Rica." *Studies in Comparative International Development* 14: 427-452.
- Guppy, N. 1984. "Tropical Deforestation: A Global View." *Foreign Affairs* 62 (Spring): 928-965.
- Gutman, P.S. 1994. "Involuntary Resettlement in Hydropower Projects." *Annual Review of Energy and the Environment* 19: 189-210.
- Hagenstein, P. 1990. "Forests." Pp. 78-100 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Halhead, V. 1992. "Social Dimensions of Forest Utilization in Mexico: Implications for Intervention." Pp. 159-169 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Hall, A.L. 1989. *Developing Amazonia: Deforestation and Social Conflict in Brazil's Carajas Program*. Manchester: Manchester University Press.
- Hamilton, L.S. and A.J. Pearce. 1988. "Soil and Water Impacts of Deforestation." Pp. 75-98 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge
- Hammer, T. 1988. "Wood for Fuel --- Energy Crisis Implying Desertification: The Case of Bara, The Sudan." Pp. 176-181 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Hanke, S.H. 1984. "On Water: A Critique of 'Global 2000'." Pp. 267-271 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Hansen, A. 1994. "The Illusion of Local Sustainability and Self-Sufficiency: Famine in a Border Area of Northwestern Zambia." *Human Organization* 53 (Spring): 11-20.
- Hardjono, J. 1991. "Environment or Employment: Vegetable Cultivation in West Java." Pp. 133-153 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Harrison, P. 1987. *The Greening of Africa: Breaking Through the Battle of Land and Food*. London: Paladin.

- Hayami, Y. and V.W. Ruttan. 1987. "Population Growth and Agricultural Productivity." Pp. 27-56 in *Population and Economic Growth: Issues and Evidence*, eds. D.G. Johnson and R.D. Lee. Madison: University of Wisconsin Press.
- Hecht, S.B. 1985. "Environment, Development and Politics: Capital Accumulation and the Livestock Sector in Eastern Amazonia." *World Development* 13 (6): 663-684.
- Hecht, S.B. 1992. "Logics of Livestock and Deforestation: the Case of Amazonia." Pp. 7-25 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Hecht, S.B. and A. Cockburn. 1990. *The Fate of the Forest: Developers, Destroyers, and Defenders of the Amazon*. New York: Harper Perennial.
- Heilig, G.K. 1994. "Neglected Dimensions of Global Land-Use Change: Reflections and Data." *Population and Development Review* 29 (December): 831-859.
- Hemming, J. (ed.) 1985. *Change in the Amazon Basin: Man's Impact on Forests and Rivers*. Manchester: Manchester University Press.
- Hendry, P. 1988. "Food and Population: Beyond Five Billion." *Population Bulletin* 43 (April).
- Hinrichsen, D. 1986. "Multiple Pollutants and Forest Decline." *Ambio* 15 (5): 258-265.
- Hirsch, P. 1987. "Deforestation and Development in Thailand." *Singapore Journal of Tropical Geography* 8 (2): 128-138.
- Holmgren, P., E.J. Masakha, and H. Sjöholm. 1994. "Not All African Land is Being Degraded: A Recent Survey of Trees on Farms in Kenya Reveals Rapidly Increasing Forest Resources." *Ambio* 23 (7): 390-395.
- Homewood, K. 1994. "Pastoralists, Environment and Development in East African Rangelands." Pp. 311-323 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Hosier, R.H. 1988. "The Economics of Deforestation in Eastern Africa." *Economic Geography* 64 (1): 121-136.
- Hoyle, R. 1993. "Resurrecting Biodiversity." Pp. 537-567 in *Gale Environmental Almanac*, ed. R. Hoyle. Detroit: Gale Research, Inc.
- Hrabovszky, J.P. 1985. "Agriculture: The Land Base." Pp. 211-254 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Hrabovszky, J.P. and K. Miyan. 1987. "Population Growth and Land Use in Nepal: The Great Turnabout." *Mountain Research and Development* 7 (3): 264-270.
- Huggett, R.J. 1988. "Terrestrial Catastrophism, Causes and Effects." *Progress in Physical Geography* 12 (4): 509-532.

- Humphrey, C.R. and F.R. Buttel. 1982. *Environment, Energy, and Society*. Belmont, CA: Wadsworth.
- Ibrahim, F. 1987. "Ecology and Land Use Changes in the Semi-Arid Zone of the Sudan." Pp. 213-229 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Independent Commission on International Humanitarian Issues. 1986. *The Vanishing Forest: The Human Consequences of Deforestation*. London: Zed Books.
- International Institute for Environment and Development and World Resources Institute. 1987. *World Resources 1987*. New York: Basic Books.
- Ives, J. 1988. "Development in the Face of Uncertainty." Pp. 54-74 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.
- Ives, J. and D.C. Pitt (eds.) 1988. *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*. London: Routledge.
- James, C., D. Norse, B.J. Skinner, and Q. Zhao. 1992. "Agriculture, Land Use, and Degradation." Pp. 79-89 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Jansson, M., R. Andersson, N. Berggren, and L. Leonardson. 1994. "Wetlands and Lakes as Nitrogen Traps." *Ambio* 23 (6): 320-325.
- Jarosz, L. 1993. "Defining and Explaining Tropical Deforestation: Shifting Cultivation and Population Growth in Colonial Madagascar (1896-1940)." *Economic Geography* 69 (4): 366-379.
- Johnson, D.G. 1984. "World Food and Agriculture." Pp. 67-112 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Joly, L.G. 1989. "The Conversion of Rain Forests to Pastures in Panama." Pp.86-130 in *The Human Ecology of Tropical Land Settlement in Latin America*, eds. D.A. Schumann and W.L. Partridge. Boulder, CO: Westview Press.
- Jolly, C.L. 1993. "Population Change, Land Use, and the Environment." *Reproductive Health Matters*, No. 1 (May): 13-25.
- Jolly, C.L. and B.B. Torrey. 1993a. "Introduction." Pp. 1-14 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Jolly, C.L. and B.B. Torrey (eds.) 1993b. *Population and Land Use in Developing Countries*. Washington, DC: National Academy Press.

- Jones, J. 1988. "Socio-Cultural Constraints in Working with Small Farmers in Forestry: Case of Land Tenure in Honduras." Pp. 155-161 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Joss, P.J., P.W. Lynch, and O.B. Williams. 1986. *Rangelands: A Resource Under Siege*. Cambridge: Cambridge University Press.
- Kendall, H.W. and D. Pimentel. 1994. "Constraints on the Expansion of the Global Food Supply." *Ambio* 23 (3): 198-205.
- Klein, R.M. and T.D. Perkins. 1987. "Cascades of Causes and Effects in Forest Decline." *Ambio* 16 (2/3): 86-93.
- Kleinart, C. 1987. "Settlement Pressure and the Destruction of the Forest in Rwanda (Eastern Central Africa)." *Applied Geography and Development* 29: 93-105.
- Kline-Cole, R.A., H.A.C. Main, and J.E. Nichol. 1990. "On Fuelwood Consumption, Population Dynamics and Deforestation in Africa." *World Development* 18 (April): 513-527.
- Kreuter, U.P. and J.P. Workman. 1994. "Costs of Overstocking on Cattle and Wildlife Ranches in Zimbabwe." *Ecological Economics* 11 (3): 237-248.
- Kumar, J. 1973. *Population and Land in World Agriculture: Recent Trends and Relationships*. Population Monograph Series No. 12. Berkeley, CA: Institute for International Studies, University of California.
- la Rivière, J.W.M. 1989. "Threats to the World's Water." *Scientific American* 261 (September): 48-55.
- Laarman, J.G. 1988. "Export of Tropical Hardwoods in the Twentieth Century." Pp. 147-163 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Laarman, J.G. 1992. "Forest Economies: Transition and Ambiguity." Pp. 133-157 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Leach, G. and R. Mearns. 1989. *Beyond the Woodfuel Crisis: People, Land and Trees in Africa*. London: Earthscan.
- Ledec, G. 1985. "The Political Economy of Tropical Deforestation." Pp. 179-226 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes and Meier.
- Leonard, H.J. 1987. *Natural Resources and Economic Development in Central America*. New Brunswick, NJ: Transaction Books.
- Lewis, L.A. and W.J. Coffey. 1985. "The Continuing Deforestation of Haiti." *Ambio* 14 (3): 150-160.

- Linnemann, H., J. Dehoog, M.A. Keyzer, and H.D.J. Vanheemst. 1977. "Food for a Growing World-Population." *Technological Forecasting and Social Change* 10 (1): 27-51.
- Little, P.D. 1992. *Elusive Granary: Herder, Farmer, and State in Northern Kenya*. Cambridge: Cambridge University Press.
- Little, P.D. and M.M. Horowitz. 1987. "Social Science Perspectives on Land, Ecology, and Development." Pp. 1-16 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Liu Changming and You Maozheng. 1994. "The South-to-North Water-Transfer Project and Sustainable Agricultural Development on the North China Plain." *Chinese Environment and Development* 5 (Summer): 86-95.
- Lohmann, L. 1990. "Commercial Tree Plantations in Thailand: Deforestation by Any Other Name." *The Ecologist* 20 (1): 9-17.
- Lohmann, L. 1993. "Land, Power and Forest Colonization in Thailand." *Global Ecology and Biogeography Letters* 3 (4-6): 180-191.
- Lowi, M.R. 1993. "Bridging the Divide: Transboundary Resource Disputes and The Case of West Bank Water." *International Security* 18 (1): 113-138.
- L'Vovich, M.I., G.F. White, A.V. Belyaev, J. Kindler, N.I. Koronkevic, T.R. Lee, and G.V. Voropaev. 1990. "Use and Transformation of Terrestrial Water Systems." Pp. 235-252 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Lugo, A.E. 1992. "Tropical Forest Uses." Pp. 117-132 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Lugo, A.E., R. Schmidt, and S. Brown. 1981. "Tropical Forests in the Caribbean." *Ambio* 10: 318-324.
- Lutz, W. and E. Holm. 1993. "Mauritius: Population and Land Use." Pp. 98-105 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Mahar, D. 1989. "Deforestation in Brazil's Amazon Region: Magnitude, Rate, and Causes." Pp. 87-116 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Mahat, T. 1987a. "Human Impact on Some Forests of the Middle Hills of Nepal: A Detailed Survey of Southeast Sindhu Palchok and Northeast Kabhre Palanchok." *Mountain Research and Development* 7 (2): 111-134.

- Mahat, T. 1987b. "Human Impact on Some Forests of the Middle Hills of Nepal: Forests in the Subsistence Economy of Sindhu Palchok and Kabhre Palanchok." *Mountain Research and Development* 7 (1): 53-70.
- Mahtab, F. and Z. Karim. 1992. "Population and Agricultural Land Use: Towards a Sustainable Food Production System in Bangladesh." *Ambio* 21 (1): 50-55.
- Malingreau, J.P. and C.J. Tucker. 1988. "Large-scale Deforestation in the Southeastern Amazon Basin of Brazil." *Ambio* 17 (1): 49-55.
- Maltby, E. 1986. *Waterlogged Wealth: Why Waste the World's Wet Places?* London: Earthscan.
- Marchetto, A., R. Mosello, R. Psenner, A. Barbieri, G. Bendetta, D. Tait, and G.A. Tartari. 1994. "Evaluation of the Level of Acidification and the Critical Loads for Alpine Lakes." *Ambio* 23 (2/3): 150-154.
- Marten, G.G. (ed.). 1986. *Traditional Agriculture in Southeast Asia: A Human Ecology Perspective*. Boulder, CO: Westview Press.
- Martine, G. 1993. "The Phases of Agricultural Modernization in Brazil." Pp. 167-186 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Mather, A.S. 1987. "Global Trends in Forest Resources." *Geography* 72 (1): 1-15.
- Mather, A.S. 1990. *Global Forest Resources*. London: Belhaven Press.
- Mattos, M.M. and C. Uhl. 1994. "Economic and Ecological Perspectives on Ranching in the Eastern Amazon." *World Development* 22 (2): 145-158.
- Mauer, H. 1988. "The Amazon: Development or Destruction?" Pp. 162-167 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Mayumi, K. 1991. "The Temporary Emancipation from Land: From the Industrial Revolution to the Present Time." *Ecological Economics* 4 (October): 35-56.
- McClintock, C. 1987. "Agricultural Policy and Food Security in Peru and Ecuador." Pp. 73-129 in *Agrarian Reform in Reverse: The Food Crisis in the Third World*, eds. B.A. Yesilada, C.D. Brockett, and B. Drury. Boulder, CO: Westview Press.
- McColl, R.W. and Kou Youguan. 1990. "Feeding China's Millions." *Geographic Review* 80 (October): 434-443.
- McIntosh, A. 1993. "Population Policy and Environmental Impacts in Rural Zimbabwe." Pp. 133-151 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- McIntosh, T.L. and A.K. Fitzsimmons. 1977. "Frontier Areas, Resources, and Developing Nations: The Case of Guatemala." *Natural Resources Forum* 1 (July): 347-358.

- McNeill, J.R. 1988. "Deforestation in the Araucaria Zone of Southern Brazil, 1900-1983." Pp. 15-32 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Mendelsohn, R. 1994. "Property Rights and Deforestation." *Oxford Economic Papers* 46 (October): 750-756.
- Metz, J.J. 1991. "A Reassessment of the Causes and Severity of Nepal's Environmental Crisis." *World Development* 19 (July): 805-820.
- Meyer, W.B. and B.L. Turner II. 1992. "Human Population Growth and Global Land-Use/Cover Change." *Annual Review of Ecological Systems* 23: 39-61.
- Miller, K.R., W.V. Reid, and C.V. Barber. 1991. "Deforestation and Species Loss: Responding to the Crisis." Pp. 78-111 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Millikan, B.H. 1992. "Tropical Deforestation, Land Degradation, and Society: Lessons from Rondonia, Brazil." *Latin American Perspectives* 19 (Winter): 45-72.
- Monckenberg, F. 1979. "Food and World Population: Future Perspectives." Pp. 124-144 in *World Population and Development: Challenges and Prospects*, ed. P.M. Hauser. Syracuse, NY: Syracuse University Press.
- Mooney, H.A. and W.G. Sombroek. 1992. "Terrestrial Systems." Pp. 173-186 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Moran, E.F. 1993. "Deforestation and Land Use in the Brazilian Amazon." *Human Ecology* 21 (1): 1-21.
- Mortimore, M. 1989. *The Causes, Nature and Rate of Soil Degradation in the Northernmost States of Nigeria and an Assessment of the Rate of Fertilizer in Counteracting the Processes of Degradation*. Environment Department Working Paper No. 17. Washington, DC: The World Bank.
- Mortimore, M. 1993. "Northern Nigeria: Land Transformation Under Agricultural Intensification." Pp. 42-69 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Myers, N. 1979. *The Sinking Ark: A Look at the Problem of Disappearing Species*. New York: Pergamon.
- Myers, N. 1981. "The Hamburger Connection: How Central America's Forests Become North America's Hamburgers." *Ambio* 10 (1): 3-8.
- Myers, N. 1983a. *A Wealth of Wild Species*. Boulder, CO: Westview Press.
- Myers, N. 1983b. "Tropical Moist Forests: Over-Exploited and Under-Utilized?" *Forest Ecology and Management* 6 (1): 59-79.

- Myers, N. 1984. *The Primary Source: Tropical Forests and our Future*. New York: W.W. Norton.
- Myers, N. 1986. "Tropical Forests: Patterns of Depletion." Pp. 9-22 in *Tropical Rainforests and the World Atmosphere*. Boulder, CO: Westview Press.
- Myers, N. 1987. "The Extinction Spasm: Impending Synergisms at Work." *Conservation Biology* 1 (1): 14-21.
- Myers, N. 1988. "Threatened Biotas: 'Hot Spots' in Tropical Forests." *The Environmentalist* 8 (3): 187-208.
- Myers, N. 1990. "The Biodiversity Challenge: Expanded Hot-Spots Analysis." *The Environmentalist* 10 (4): 243-256.
- Myers, N. 1991. "The World's Forests and Human Populations: The Environmental Interconnections." Pp. 237-251 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press. (Also see E. Zavarin, "Comment: On the Medical Value of Tropical Ecosystems," *Ibid*, pp. 252-253 and Jing-Neng Li, "Comment: Population Effects on Deforestation and Soil Erosion in China," *Ibid*, pp. 254-258.)
- Myers, N. 1992a. "The Anatomy of International Action: The Case of Tropical Deforestation." Pp. 430-454 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Myers, N. 1992b. *The Primary Source: Tropical Forests and Our Future*. Updated Edition. New York: W.W. Norton.
- Myers, N. 1994. "Population and Biodiversity." Pp. 117-136 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Myers, N. 1995. "Population and Biodiversity." *Ambio* 24 (1): 56-57.
- Myers, N. and R. Tucker. 1987. "Deforestation in Central America: Spanish Legacy and North American Consumers." *Environmental Review* 11 (1): 55-71.
- Naff, T. and R. Matson (eds.). 1984. *Water in the Middle East: Conflict or Cooperation*. Boulder, CO: Westview Press.
- Nash, L. 1993. "Water Quality and Health." Pp. 25-39 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Nations, J.D. 1992. "Terrestrial Impacts in Mexico and Central America." Pp. 191-203 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.

- Nations, J.D. and D.I. Komer. 1982. "Indians, Immigrants and Beef Exports: Deforestation in Central America." *Cultural Survival Quarterly* 6 (1): 6-12.
- Nelson, J.G. and R. Serafin. 1992. "Assessing Biodiversity: A Human Ecological Approach." *Ambio* 21 (3): 212-218.
- Nelson, L. and C. Sandell. 1990. *Population and Water Resources*. Washington, DC: National Audubon Society.
- Ness, G.D. 1993. "The Powers and Limits of State and Technology: Rice and Population in Southeast Asia." Pp. 109-132 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Netting, R.M. 1993. *Smallholders, Householders: The Ecology of Small-Scale, Sustainable Agriculture*. Stanford, CA: Stanford University Press.
- Newman, K. 1981. "Women and Law: Land Tenure in Africa." Pp. 120-138 in *Women and World Change: Equity Issues in Development*, eds. N. Black and A.B. Cottrell. Beverly Hills, CA: Sage Publications.
- Nibbering, J.W. 1991. "Crisis and Resilience in Upland Land Use in Java." Pp. 104-132 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Norton, B. (ed.). 1986. *The Preservation of Species*. Princeton, NJ: Princeton University Press.
- Nyerges, A.E. 1992. "The Ecology of Wealth-in-People: Agriculture, Settlement, and Society on the Perpetual Frontier." *American Anthropologist* 94 (4): 860-881.
- Nykvist, N., H. Grip, B.L. Sim, A. Malmer, and F.K. Wong. 1994. "Nutrient Losses in Forest Plantations in Sabah, Malaysia." *Ambio* 23 (3): 210-215.
- Okafor, F. 1987. "Population Pressure and Land Resource Depletion in Southeastern Nigeria." *Applied Geography* 7 (3): 243-256.
- Oldfield, M.L. 1989. *The Value of Conserving Genetic Resources*. Sunderland, MA: Sinauer Associates.
- O'Neill, R.V., C.T. Hunsaker, D. Jones, J.M. Klopataek, V.H. Dale, M.G. Turner, R.H. Gardner, and R. Graham. 1995. "Sustainability at Landscape and Regional Scales." Pp. 137-143 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Osenobo, G.J. 1988. "The Human Causes of Forest Depletion in Nigeria." *Environmental Conservation* 15 (1): 17-28.
- Palloni, A. 1994. "The Relation Between Population and Deforestation: Methods for Drawing Causal Inferences from Macro and Micro Studies." Pp. 125-165 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.

- Perkins, D.H. 1969. *Agricultural Development in China: 1368-1968*. Chicago: Aldine.
- Perrings, C. C. Folke, and K.-G. Mäler. 1992. "The Ecology and Economics of Biodiversity Loss: The Research Agenda." *Ambio* 21 (3): 201-211.
- Peters, R.L. and T.E. Lovejoy. 1990. "Terrestrial Fauna." Pp. 353-369 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Phillips-Howard, K.D. and F. Lyon. 1994. "Agricultural Intensification and the Threat to Soil Fertility in Africa: Evidence from Jos Plateau, Nigeria." *Geographical Journal* 160 (November): 252-265.
- Pickett, S.T.A. 1993. "An Ecological Perspective on Population Change and Land Use." Pp. 37-41 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Pierce Colfer, C.J. 1988. "Kenyah Dayak Tree Cutting: In Context (Indonesia)." Pp. 172-175 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Pimentel, D. 1991. "Global Warming, Population Growth, and Natural Resources for Food Production." *Society and Natural Resources* 4 (4): 347-363.
- Pimentel, D. 1992. "Competition for Land: Development, Food, and Fuel." Pp. 325-348 in *Technologies for a Greenhouse-Constrained Society*, eds. M.A. Kuliasha, A. Zucker, and K.J. Ballew. Boca Raton, FL: Lewis Publishers.
- Pimentel, D. and C.W. Hall (eds.). 1989. *Food and Natural Resources*. New York: Academic Press.
- Pimm, S.L., H.L. Jones, and J. Diamond. 1988. "On the Risk of Extinction." *American Naturalist* 132 (6): 757-785.
- Pimm, S.L., G.J. Russell, J.L. Gittleman, and T.M. Brooks. 1995. "The Future of Biodiversity." *Science* 269 (21 July): 347-350.
- Pingali, P.L. and H.P. Binswanger. 1987. "Population Density and Agricultural Diversification: A Study of the Evolution of Technologies in Tropical Agriculture." Pp. 57-101 in *Population Growth and Economic Development: Issues and Evidence*, eds. D.G. Johnson and R.D. Lee. Madison: University of Wisconsin Press.
- Pirages, D. 1978. *The New Context for International Relations: Global Ecopolitics*. North Scituate, MA: Duxbury.
- Pirages, D. 1989. *Global Technopolitics: The International Politics of Technology and Resources*. Pacific Grove, CA: Brooks/Cole.
- Plumwood, V. and R. Routley. 1982. "World Rainforest Destruction: The Social Factors." *The Ecologist* 12 (1): 4-12.

- Posner, J. and M. McPherson. 1982. "Agriculture on the Steep Slopes of Latin America." *World Development* 10 (5): 341-353.
- Postel, S. 1984. *Air Pollution, Acid Rain, and the Future of Forests*. Worldwatch Paper No. 58. Washington, DC: Worldwatch Institute.
- Postel, S. 1989. *Water for Agriculture: Facing the Limits*. Worldwatch Paper No. 93. Washington, DC: Worldwatch Institute.
- Postel, S. 1992. *The Last Oasis: Facing Water Scarcity*. London: Earthscan Publications.
- Postel, S. 1993a. "Facing Water Scarcity." Pp. 22-41 in *State of the World 1993*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1993b. "Water and Agriculture." Pp. 56-66 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Postel, S. and L. Heise. 1988. "Reforestation of the Earth." Pp. 83-100 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Potter, L. 1991. "Environmental and Social Aspects of Timber Exploitation in Kalimantan, 1967-1989." Pp. 177-211 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Prance, G.T. 1990. "Flora." Pp. 387-391 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Prescott-Allen, R. and C. Prescott-Allen. 1982. *What's Wildlife Worth?* London: Earthscan.
- Proctor, J. 1988. "Tropical Rain Forest: Structure and Dynamics." *Progress in Physical Geography* 12 (September): 405-420.
- Prosterman, R.L. and J.M. Riedinger. 1987. *Land Reform and Democratic Development*. Baltimore: The Johns Hopkins University Press.
- Raven, P.H. 1991. "Winners and Losers in the Twentieth-Century Struggle to Survive." Pp. 259-267 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Redclift, M. and D. Goodman. 1991. "The Machinery of Hunger: The Crisis of Latin American Food Systems." Pp. 48-78 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Repetto, R. 1988a. "Overview." Pp. 1-41 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Repetto, R. 1988b. *The Forest for the Trees? Government Policies and the Misuse of Forest Resources*. Washington, DC: World Resources Institute.

- Restrepo, I. 1992. "Eating from the Tropics or Destroying It?" Pp. 207-211 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Revelle, R. 1984. "The World Supply of Agricultural Land." Pp. 184-201 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Rice, R.C. 1991. "Environmental Degradation, Pollution, and the Exploitation of Indonesia's Fishery Resources." Pp. 154-176 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Richards, J.F. 1990. "Land Transformation." Pp. 163-178 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Richards, J.F. and R.P. Tucker (eds.) 1988. *World Deforestation in the 20th Century*. Durham, NC: Duke University Press.
- Riede, K. 1993. "Monitoring Biodiversity: Analysis of Amazonian Rainforest Sounds." *Ambio* 22 (8): 546-548.
- Rigg, J. 1993. "Forests and Farmers, Land and Livelihoods: Changing Resource Realities in Thailand." *Global Ecology and Biogeography Letters* 3 (4-6): 277-289.
- Robinson, J.G. and K.H. Redford (eds.). 1991. *Neotropical Wildlife Use and Conservation*. Chicago: University of Chicago Press.
- Robinson, W. and W. Schutjer. 1984. "Agricultural Development and Demographic Change: A Generalization of the Boserup Model." *Economic Development and Cultural Change* 32 (2): 355-366.
- Rogers, P.P. 1985. "Fresh Water." Pp. 255-298 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Rosin, T.R. 1993. "The Tradition of Groundwater Irrigation in Northwestern India." *Human Ecology* 21 (March): 51-86.
- Rowe, R., N.P. Sharma, and J. Browder. 1992. "Deforestation: Problems, Causes, and Concerns." Pp. 33-45 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Rozanov, B.G., V. Targulian, and D.S. Orlav. 1990. "Soils." Pp. 203-214 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

- Rudel, T.K. 1989. "Population, Development, and Tropical Deforestation: A Cross-National Study." *Rural Sociology* 54 (Fall): 327-338.
- Rudel, T.K. with B. Horowitz. 1993. *Tropical Deforestation: Small Farmers and Land Clearing in the Ecuadorian Amazon*. New York: Columbia University Press.
- Russell, W.M.S. 1988. "Population, Swidden Farming, and the Tropical Environment." *Population and Environment* 10 (2): 77-94.
- Ruttan, V. 1993a. "Constraints on Sustainable Growth in Agricultural Production." Pp. 57-70 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Ruttan, V. 1993b. "Population Growth, Environmental Change, and Innovation: Implications for Sustainable Growth in Agriculture." Pp. 124-156 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Ryder, R. 1994. "Land Evaluation for Steepland Agriculture in the Dominican Republic." *Geographical Journal* 160 (March): 74-86.
- Salati, E. 1992. "Possible Climatological Impacts." Pp. 173-189 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Salati, E., R.L. Victoria, L.A. Martinelli, and J.E. Richey. 1989. "Deforestation and its Possible Role in Changes in the Brazilian Amazon." Pp. 159-171 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Sargent, C. and S. Bass. 1992. "The Future Shape of Forests." Pp. 195-224 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Schmink, M. 1992. *Contested Frontiers in Amazonia*. New York: Columbia University Press.
- Schmink, M. 1994. "The Socioeconomic Matrix of Deforestation." Pp. 253-275 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Schultes, R.E. and R.F. Raffauf. 1990. *The Healing Forest: Medicinal and Toxic Plants of the Northwest Amazonia*. Portland, OR: Dioscorides Press.
- Schumann, D.A. and W.L. Partridge (eds.). 1989. *The Human Ecology of Tropical Land Settlement in Latin America*. Boulder, CO: Westview Press.
- Schwarz, H.E., J. Emel, W.J. Dickens, P. Rogers, and J. Thompson. 1990. "Water Quality and Flows." Pp. 253-270 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

- Sedjo, R.A. 1992a. "Preserving Biodiversity as a Resource." *Resources* 106 (Winter): 26-29.
- Sedjo, R.A. 1992b. "Temperate Forest Ecosystem in the Global Carbon Cycle." *Ambio* 21 (4): 274-277.
- Sedjo, R.A. 1995. "Forests: Conflicting Signals." Pp. 177-209 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Sedjo, R.A. and M. Clawson. 1984. "Global Forests." Pp. 128-183 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Sellers, S. 1988. "The Relationship between Land Tenure and Agriculture Production in Tukurrique, Costa Rica." Pp. 75-79 in *Whose Trees? Proprietary Dimensions of Forestry*, eds. L. Fortmann and J.W. Bruce. Boulder, CO: Westview Press.
- Sere, C. and L.S. Jarvis. 1992. "Livestock Economy and Forest Destruction." Pp. 95-113 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Sharma, N.P. (ed.) 1992. *Managing the World's Forests: Looking for Balance Between Conservation and Development*. Dubuque, IA: Kendall/Hunt Publishing Co.
- Sharma, N.P., R. Rowe, K. Openshaw, and M. Jacobson. 1992. "World Forests in Perspective." Pp. 17-31 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Sherman, K. 1995. "Large Marine Ecosystems and Fisheries." Pp. 207-233 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Shiklomanov, I.A. 1993. "World Fresh Water Resources." Pp. 13-24 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Shipton, P. 1994. "Land and Culture in Tropical Africa: Soils, Symbols, and the Metaphysics of the Mundane." *Annual Review of Anthropology* 23: 347-377.
- Shrestha, N.R. 1982. "A Preliminary Report on Population Pressure and Land Resources in Nepal." *Journal of Developing Areas* 16 (2): 197-212.
- Shrestha, N.R. 1989. "Frontier Settlement and Landlessness among Hill Migrants in Nepal Tarai." *Annals of the Association of American Geographers* 79 (3): 370-389.
- Shrestha, N.R. 1990. *Landlessness and Migration in Nepal*. Boulder, CO: Westview Press.

- Shrestha, N.R. and D. Conway. 1985. "Issues in Population Pressure, Land Resettlement, and Development: The Case of Nepal." *Studies in Comparative International Development* 20 (1): 55-82.
- Shvidenko, A. and S. Nilsson. 1994. "What Do We Know About the Siberian Forests?" *Ambio* 23 (7): 396-404.
- Sivaramakrishnan, K. 1995. "Colonialism and Forestry in India: Imagining the Past in Present Politics." *Comparative Studies in Society and History* 37 (January): 3-40.
- Skole, D. and C. Tucker. 1993. "Tropical Deforestation and Habitat Fragmentation in the Amazon: Satellite Data from 1978-1988." *Science* 260 (25 June): 1905-1910.
- Smil, V. 1979. "China's Water Resources." *Current History* 77: 57-61, 86.
- Smil, V. 1981a. "China's Agroecosystem." *Agro-ecosystems* 7: 27-46.
- Smil, V. 1981b. "Land Use and Land Management in the People's Republic of China." *Environmental Management* 5 (2): 301-311.
- Smil, V. 1983. "Deforestation in China." *Ambio* 12 (5): 226-231.
- Smil, V. 1993. *China's Environmental Crisis: An Inquiry into the Limits of National Development*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1994. "How Many People Can the Earth Feed?" *Population and Development Review* 20 (June): 255-292.
- Smil, V. 1995. "Who Will Feed China?" *China Quarterly*, No. 143 (September): 801-813.
- Smith, N.J.H. and D.L. Plucknett. 1995. "Sustainable Agriculture in the Tropics: Issues, Indicators, and Measurement." Pp. 237-247 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by R.M. Saleth, *Ibid*, pp. 248-249.]
- Soegiarto, A. 1995. "Sustainable Development of Fisheries in Southeast Asia." Pp. 329-333 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Soejarto, D.D. and N.R. Farnsworth. 1989. "Tropical Rain Forests: Potential Source of New Drugs?" *Perspectives in Biology and Medicine* 32 (2): 244-256.
- Southgate, D. and M. Whitaker. 1992. "Promoting Resource Degradation in Latin America: Tropical Deforestation, Soil Erosion, and Coastal Ecosystem Disturbance in Ecuador." *Economic Development and Cultural Change* 40 (July): 787-807.
- Southgate, D., R. Sierra, and L. Brown. 1991. "A Statistical Analysis of the Causes of Deforestation in Eastern Ecuador." *World Development* 19: 1145-1151.

- Spears, J. and E.S. Ayensu. 1985. "Resources, Development, and the New Century: Forestry." Pp. 299-335 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Srinivasan, T.N. 1987. "Population and Food." Pp. 3-26 in *Population Growth & Economic Development: Issues and Evidence*, eds. D.G. Johnson and R.D. Lee. Madison: University of Wisconsin Press.
- Stanhill, G. 1985. "The Water Resource for Agriculture." *Philosophical Transactions of the Royal Society B* 310: 161-173.
- Stanhill, G. 1986. "Water Use Efficiency." *Advances in Agronomy* 39: 53-85.
- Starr, J.R. 1991. "Water Wars." *Foreign Policy*, No. 82 (Spring): 17-36.
- Starr, J.R. and D.C. Stoll (eds.). 1988. *The Politics of Scarcity: Water in the Middle East*. Boulder, CO: Westview Press.
- Stevenson, G.G. 1989. "The Production, Distribution, and Consumption of Fuelwood in Haiti." *Journal of Developing Areas* 24 (1): 59-76.
- Stoffle, R.W., D.B. Halmo, B.W. Stoffle, A.L. Williams, and C.G. Burpee. 1993. "An Ecosystem Approach to the Study of Coastal Areas: a Case Study from the Dominican Republic." Pp. 253-282 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.
- Stonich, S. and B. DeWalt. 1989. "The Political Economy of Agricultural Growth and Rural Transformation in Honduras and Mexico." Pp. 202-230 in *Human Systems Ecology: Studies in the Integration of Political Economy, Adaptation, and Socionatural Region*, eds. S. Smith and E. Reeves. Boulder, CO: Westview Press.
- Strasma, J.D. and R. Celis. 1992. "Land Taxation, the Poor, and Sustainable Development." Pp. 143-169 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- Streeten, P. 1987. *What Price Food? Agricultural Price Policies in Developing Countries*. Ithaca, NY: Cornell University Press.
- Stubbs, R. 1983. "Malaysia's Rubber Smallholding Industry: Crisis and the Search for Stability." *Pacific Affairs* 56 (Spring): 84-105.
- Swaney, J.A. and P.I. Olsen. 1992. "The Economics of Biodiversity: Lives and Lifestyles." *Journal of Economic Issues* 26 (March): 1-25.
- Teels, B. 1990. "Wetlands." Pp. 121-142 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Thiesenhusen, W.C. 1984. "The Illusory Goal of Equity in Latin American Land Reform." Pp. 31-62 in *International Dimensions of Land Reform*, ed. J.D. Montgomery. Boulder, CO: Westview Press.
- Thiesenhusen, W.C. 1989a. *Land Tenure and the Environmental Debate*. Madison, WI: University of Wisconsin Press.

- Thiesenhusen, W.C. (ed.) 1989b. *Searching for Agrarian Reform in Latin America*. Boston: Unwin Hyman.
- Thiesenhusen, W.C. 1991. "Implications of the Rural Land Tenure System for the Environmental Debate: Three Scenarios." *Journal of Developing Areas* 26 (October): 1-24.
- Thomas-Slayter, B.P. 1992. "Politics, Class, and Gender in African Resource Management: The Case of Rural Kenya." *Economic Development and Cultural Change* 40 (July): 787-807.
- Thompson, M. and M. Warburton. 1988. "Uncertainty on a Himalayan Scale." Pp. 1-53 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.
- Thomson, J.T. 1988. "Deforestation and Desertification in Twentieth-Century Arid Sahelian Africa." Pp. 70-90 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Toledo, V.M. 1992. "Bio-Economic Costs." Pp. 67-93 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Tucker, R.P. 1988. "The British Empire and India's Forest Resources: The Timberlands of Assam and Kumaon, 1914-1950." Pp. 91-111 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- Turner II, B.L. and W.B. Meyer. 1991. "Land Use and Land Cover in Global Environmental Change: Considerations for Study." *International Social Science Journal* 130: 699-792.
- Turner II, B.L., R.Q. Hanham, and R.V. Portararo. 1977. "Population Pressure and Agricultural Intensity." *Annals of the Association of American Geographers* 67 (3): 384-396.
- Turner II, B.L., W.B. Meyer, and D.L. Skole. 1994. "Global Land-Use/Land-Cover Change: Towards an Integrated Study." *Ambio* 23 (1): 91-95.
- United Nations Educational, Scientific, and Cultural Organization. 1992. *Shifting Agriculture and Sustainable Development: An Interdisciplinary from Northeastern India*. Paris: UNESCO.
- United Nations Environment Programme. 1987. *Environmental Data Report*. Oxford: Basil Blackwell.
- United Nations Environment Programme. 1991. *Environmental Data Report: 1991/92*. Third Edition. Oxford: Basil Blackwell.
- Veeck, G. and C.W. Pannell. 1989. "Rural Economic Restructuring and Farm Household Income in Jiangsu, People's Republic of China." *Annals of the Association of American Geographers* 79 (June): 275-292.

- Vincent, J.R. 1992. "The Tropical Timber Trade and Sustainable Development." *Science* 256 (19 June): 1651-1655.
- Vincent, J.R. and C.S. Binkley. 1992. "Forest-Based Industrialization: a Dynamic Perspective." Pp. 93-137 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Walker, H.J. 1990. "The Coastal Zone." Pp. 271-294 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Walker, R.T. 1987. "Land Use Transition and Deforestation in Developing Countries." *Geographical Analysis* 19 (January): 18-30.
- Wang Zhishi. 1995. "Macau Faces Challenge of Integrated Water Management." *Waste Management & the Environment* 3 (September): 18, 20-23.
- Weber, P. 1994. *Net Loss: Fish, Jobs and the Marine Environment*. Worldwatch Paper No. 120. Washington, DC: Worldwatch Institute.
- Westoby, J. 1987. *The Purpose of Forests: Follies of Development*. Oxford: Basil Blackwell.
- Westoby, J. 1989. *Introduction to World Forestry*. London: Basil Blackwell.
- White, G.F. 1984. "Water Resource Adequacy: Illusion and Reality." Pp. 250-266 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Williams, M. 1989. "Deforestation: Past and Present." *Progress in Human Geography* 13 (2): 176-208.
- Williams, M. 1990. "Forests." Pp. 179-201 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Wilson, E.O. 1985. "The Biological Diversity Crisis: A Challenge to Science." *Issues in Science and Technology* 2 (1): 20-29.
- Wilson, E.O. 1989. "Threats to Biodiversity." *Scientific American* 261 (September): 60-66.
- Wilson, E.O. 1992. *The Diversity of Life*. Cambridge, MA: Harvard University Press.
- Wilson, E.O. and F.M. Peter (eds.). 1988. *Biodiversity*. Washington, DC: National Academy Press.
- Wirosuhardjo, K. 1993. "Indonesia: Stresses and Reactions." Pp. 153-165 in *Population-Environment Dynamics: Ideas and Observations*, eds. G.D. Ness, W.D. Drake, and S.R. Brechin. Ann Arbor: University of Michigan Press.

- Wise, J.P. 1984. "The Future of Food from the Sea." Pp. 113-127 in *The Resourceful Earth: A Response to 'Global 2000'*, eds. J.L. Simon and H. Kahn. Oxford: Basil Blackwell.
- Woldesmiat, T. and R. Cox. 1987. "The Food Crisis in Kenya." Pp. 181-202 in *Agrarian Reform in Reverse: The Food Crisis in the Third World*, eds. B.A. Yesilada, C.D. Brockett, and B. Drury. Boulder, CO: Westview Press.
- Wolf, E.C. 1986. "Managing Rangelands." Pp. 62-77 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Wolf, E.C. 1987. "Raising Agricultural Productivity." Pp. 139-156 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Wolman, M.G. 1993. "Population, Land Use, and Environment: A Long History." Pp. 15-29 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Wolman, M.G. and F.G.A. Fournier (eds.). 1987. *Land Transformation in Agriculture*. SCOPE 32. New York: Wiley.
- Wood, W.B. 1990. "Tropical Deforestation: Balancing Regional Development Demands and Global Environmental Concerns." *Global Environmental Change* 1 (December): 23-41.
- World Conservation Monitoring Centre. 1992. *Global Biodiversity: Status of the Earth's Living Resources*. London: Chapman and Hall.
- World Resources Institute and International Institute for Environment and Development. 1986. *World Resources 1986*. New York: Basic Books.
- World Resources Institute, International Institute for Environment and Development, and United Nations Environment Programme. 1988. *World Resources 1988-89*. New York: Basic Books.
- World Resources Institute, The United Nations Environment Programme, and The United Nations Development Programme. 1992. *World Resources 1992-93: Toward Sustainable Development*. New York: Oxford University Press.
- World Resources Institute, The United Nations Environment Programme, and The United Nations Development Programme. 1994. *World Resources 1994-95: People and the Environment*. New York: Oxford University Press.
- Yeager, R. and N. Miller. 1986. *Wild Life, Wild Death*. Albany, NY: State University of New York Press.
- Yesilada, B.A., C.D. Brockett, and B. Drury (eds.) 1987. *Agrarian Reform in Reverse: The Food Crisis in the Third World*. Boulder, CO: Westview Press.
- Yudelman, M. 1990. "Sustainable and Equitable Development in Irrigated Environments." Pp. 61-85 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors.

- U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- Zaimeche, S.E. 1994a. "Change, the State, and Deforestation: The African Example." *Geographical Journal* 160 (March): 50-56.
- Zaimeche, S.E. 1994b. "The Consequences of Rapid Deforestation: A North African Example." *Ambio* 23 (2/3): 136-140.
- Zhang Jing, Yan Ju, and Zhang Zui-Feng. 1995. "Nationwide River Chemistry Trends in China: Huanghe and Changjiang." *Ambio* 24 (5): 275-279.
- Zonneveld, I.S. 1993. "What is Meant by Land Use Change?" Pp. 30-36 in *Population and Land Use in Developing Countries*, eds. C.L. Jolly and B.B. Torrey. Washington, DC: National Academy Press.
- Zweifler, M.O., M.A. Gold, and R.N. Thomas. 1994. "Land Use Evaluation in Hill Regions of the Dominican Republic." *The Professional Geographer* 46 (February): 39-53.

III. Ecological Impacts of Third World Development

The materials presented in the preceding chapter examine the role of natural resources in the development process and tend to focus on questions of resource availability and use in developing regions. Stated otherwise, environmental conditions and trends are viewed as independent variables affecting socioeconomic development. In contrast, the studies cited in Chapter III turn this relationship on its head; they are concerned with the effects of development on the environment. More specifically, this body of theory and research identifies linkages between the processes and outcomes of development-oriented activities and various indicators of *environmental quality*.

Space limitations preclude coverage of all dimensions of environmental quality, even if confined to the situation in the developing world. A comprehensive inventory would include studies of various manifestations of natural resource degradation and disruption of ecosystem functions, ranging from localized symptoms such as soil, water, and air pollution to changes in the biosphere as seen in ozone depletion and the accumulation of greenhouse gases. This chapter is limited to four topics. The materials contained in Section A provide a broad overview of the environmental impacts of development, while Sections B, C, and D cover specific manifestations of these development-linked alterations to the physical environment.

An understanding of the evolution of concern about global issues of environmental quality can be gained from selected studies listed in Section A. Key citations include Ward and Dubos' *Only One Earth*, the unofficial background document for the 1972 U.N. Conference on the Human Environment; Worldwatch Institute founder Lester Brown's *The Twenty-Ninth Day* (1978); *Our Common Future* (1987), the final report of the World Commission on Environment and

Development; the encyclopedic effort by the United Nations Environment Programme to summarize the experience of the two decades following the Stockholm Conference (Tolba, El-Kholy, et al. 1992); and the World Bank's *World Development Report 1992: Development and the Environment*. Periodic assessments of connections between environmental quality and development trends are found in publications of the Worldwatch Institute (e.g., Hayes 1979; Eckholm 1982; Brown 1985; Brown and Wolf 1986; Brown and Postel 1987; Brown and Flavin 1988). Other useful overviews include reports by Woodwell (1985), El Hinnawi and Hashmi (1987), Schramm and Warford (1989), Warford (1989), MacNeill et al. (1991), Gore (1992), and Kane and Starke (1992). Theoretical and methodological issues concerning relationships between development and environmental quality are examined by Antle and Heidebrink (1995) and Grossman and Krueger (1995).

Materials contained in this first section of the chapter also address more specific issues of environmental quality. One set of studies is focused on specific ecosystem conditions, including environmental chemistry (Eisenbud 1990; Houghton and Skole 1990; Husar and Husar 1990; Smil 1990; Brown et al. 1990), water quality (Falkenmark 1991; Frederick 1992; and Nash 1993), soil quality (Schnoor and Thomas 1994), biotic diversity (Schlesinger 1994), and natural disasters (Wijkman and Timberlake 1989). Another key topic is reflected in the search for development-related causes of ecosystem pollution. Commonly recognized candidates include energy consumption (Darmstadter 1992), industrial production (Brown et al. 1990; Ayres et al. 1992; Robins and Trisoglio 1992; Nriagu 1994; Thomas and Spiro 1994), mining activities (Young 1992b; Grösser et al. 1994), international trade (Leonard 1988; French 1993), transportation technology (Hart 1994), and population growth (McNicoll 1984; Pulliam 1988; Shaw 1988, 1989). Implications of environmental pollution for global security are discussed by Mathews (1989) and Myers (1993b).

Finally, studies of the effects of development on environmental quality are available for the various geopolitical regions of the world. Conditions in African countries are found in reports by Berry et al. (1990), Udo (1990), Falkenmark (1991), Berg et al. (1992), Mayo and Mashauri (1992), Woube (1994), and Swearingen and Bencherifa (1996). For Asia, data are provided by Smil (1984, 1993), Brookfield et al. (1990), Zhou and Zhang (1990), He (1991), Rodhe et al. (1992), Wenyong (1992), and Tonna (1995). Among the many studies pertaining to Latin American countries are studies by Collins (1986), Ezcurra (1990), Salat et al. (1990), Grösser et al. (1994), and Murray (1995). Although the areas of the former Soviet Union and Eastern Europe are not usually included among developing nations, examination of the conditions underlying their problems of environmental quality can yield useful lessons for the developing world (see Alayev et al. 1990; Badenkov et al. 1990; and Debardeleben 1991).

The citations contained in Section B are focused on issues of atmospheric

quality and climate change. Over the past two decades these phenomena have become recognized as truly global problems (National Academy of Sciences 1979, 1982, 1989; Vitousek 1989; Elsom 1992; Golitsyn et al. 1992; Graedel and Crutzen 1993; World Resources Institute et al. 1992; Watson and Chow 1994). In spite of some claims to the contrary (e.g., Goklang 1995), many studies have identified problematic, if not alarming, changes in atmospheric chemistry that appear to be the result of various modes of human activity (Woodwell 1989; Graedel and Crutzen 1990; Houghton and Skole 1990; Smil 1990a, 1991; Woodwell and Houghton 1990; Ayres et al. 1994; Loganathan and Kannan 1994; Prinn 1994). Stated otherwise, socioeconomic development --- as seen in increased energy consumption, material production, and ecosystem transformation --- is linked to alterations of the biogeochemical cycles, based on flows of carbon and nitrogen, that determine the chemical composition of the atmosphere and form the basis of the human life support system. In turn, these chemical changes are believed by many observers to have the potential to yield enduring shifts in regional and global weather patterns (Houghton and Woodwell 1989; Wirth 1989, 1991; Easterling 1990; Mintzer 1990; Woodwell 1990; Ausubel 1991; Schneider 1994; Root and Schneider 1995).

Current atmospheric changes are evident in regional problems of *acid rain* (McCormick 1985; Galloway et al. 1987; Regens and Rycroft 1988; Rodhe and Herrera 1988; Wellburn 1988a, 1988b; Cowling 1991) and depletion of the Antarctic ozone layer (Roan 1989; Solomon 1989; Gribbin 1990). In the long run, however, much more serious consequences for human society have been linked to *global warming*, the hypothesized effect of increased levels of carbon dioxide and other greenhouse gasses in the atmosphere (Mintzer 1987; Firor 1988; Abrahamson 1989a, 1989b; Broeker 1989; Falk and Brownlow 1989; Hansen 1989; MacDonald 1989; Schneider 1989a, 1989b, 1989d; Arrhenius and Waltz 1990; Gribbin 1990; Leggett 1990; Smil 1990b; Schelling 1992; Schmandt and Clarkson 1992; Ungar 1992; Beckerman and Malkin 1994; Balling 1995; Moore 1995). Examination of this literature will show that the issues surrounding global warming are far from clear, and conclusions are highly tentative.

Nonetheless, a growing body of research and analysis seeks to discover the human causes and consequences of atmospheric and climate change. Among the principal causes identified to date are activities that result in increased emissions of carbon dioxide (National Academy of Sciences 1979, 1982, 1989; Carbon Dioxide Assessment Committee 1983; Buzzaz 1990; Manabe et al. 1994; Moomaw and Tullis 1994; Mooney and Koch 1994), including biomass incineration (Andreae 1991; Woodwell, 1992), automobile use (Ross 1994), and shifting patterns of land use (Southworth et al. 1991). Though the linkages are indirect, population growth is also seen as an important contributor to atmospheric and climate change (Galloway 1986; Birdsall 1992; Bongaarts 1992; Orr 1992; Bartiaux and van Yepersele 1993; Galloway et al. 1994; Parikh and Painuly 1994).

A variety of consequences for human life and social organization have been attributed to atmospheric change (Topping 1992). Specific effects include threats to human health (World Health Organization 1992; Gayle 1993b), various impediments to the sustainability of economic growth and the maintenance of economic systems (Barbier 1989; Beckerman 1991; Nordhaus 1991a, 1991b, 1991c; Broome 1992; Cline 1992; Morisette and Rosenberg 1992), preservation of biodiversity (Peters 1989a, 1989b), disruption of agricultural systems (Bohle et al. 1994; Reilly et al. 1994; Rosensweig and Parry 1994), and --- linked to global warming --- the anticipated rise of sea level (Broadus 1989; Titus 1989). More generally, analysts have pointed to increased problems of international security (Brown 1989), maintenance of global carrying capacity (Downing and Parry 1994) and sustainable development (Obasi 1992; Andrews and Dickenson 1995), and political capacity to mount an effective response to underlying causes of changes in the global atmosphere and climate (Glantz 1989; Gleick 1989).

Because of the global implications of alterations of atmospheric chemistry and climate, relatively few studies have been focused on regional and national effects. Nonetheless, it is widely recognized that some areas, e.g., coastal regions subject to inundation from a rise of sea level, will be more affected than others. Moreover, significant climate shifts could result in either improvement or deterioration of nations' agricultural conditions. These and related issues are discussed in studies focused on Africa (Lockwood 1986), Asia (Smil 1984; Zhao and Sun 1986; Barron and Hills 1990; Perlack et al. 1993; Andr n et al. 1994; Chaturvedi 1994), and Latin America and the Caribbean (Liverman 1990, 1992; Liverman and O'Brien 1991; Brenes Vargas and Saborio Trejos 1994).

The contributions of land and forest resources to the development process are discussed in detail in the literature cited in Chapter II, Section D. However, another critical research issue concerns the ways in which socioeconomic development generates land degradation, in general, and desertification in particular. Section C of Chapter III is devoted to this topic.

Over the past decade or so a number of overviews of land degradation issues have been published (Brown and Wolf 1984; Blaikie 1985; Blaikie et al. 1987; Warren and Agnew 1988; Douglas 1990; Stryker 1990; Barrow 1991; Hanson and Lindh 1993; Pimentel 1993; Zhao 1994). They usually argue that this phenomenon constitutes a continuum, ranging from mild soil erosion --- experienced in all countries --- to severe desertification, a condition found in a limited number of locations in which there is irreversible loss of primary productivity and/or species diversity. A wide range of factors has been implicated as primary or contributing causes of land degradation, including natural hazards, population growth and movements, land tenure patterns, poverty, political instability, overgrazing, and inappropriate agricultural technology and practices (Conant 1982; Blaikie et al. 1987; Abel and Blaikie 1989; Southgate 1990; Barrow 1991; Pimentel 1993; Coxhead and Jayasuriya 1994). Less attention has been

given to the consequences of land degradation (but see Caldwell 1975, 1984).

Because land degradation is a common occurrence in the developing world, studies are available for countries representing all major geopolitical regions. Examples from Africa include: Caldwell 1975, 1984; Cook 1983; Beinhart 1984; Downs and Regna 1988; Biot et al. 1989; and Stahl 1993. Discussion of Asian issues is found in Smil 1984, 1993; Repetto 1986; and Blaikie 1988. Analyses of land degradation problems in Latin American and the Caribbean are reported by Bedoya 1987; Liverman 1990; Millikan 1992; Southgate and Whitaker 1992; and Zimmerer 1993.

As mentioned above, desertification represents the most severe manifestation of land degradation. Due to its dramatic and debilitating effects on terrestrial ecosystems, desertification is commonly recognized to be one of the most serious contemporary environmental problems in the developing world. Not surprisingly, there is a vast literature covering its typical symptoms, causes and consequences (Dregne 1977, 1983, 1984, 1985; Eckholm and Brown 1977; Glantz 1977; Hare et al. 1977; Le Houerou 1977; Richmond 1977; Reining 1978; Larmuth 1979; Warren and Maizels 1977; Kovda 1980; Mabbut and Wilson 1980; Walls 1980; Grainger 1982; Spooner 1982, 1989; Spooner and Mann 1982; Heathcote 1983; Verstraete 1983; Watts 1983; Gradus 1985; Glansky and Orlovsky 1986; Ahmad and Kassas 1987; Kassas 1987; Cloudsley-Thompson 1988; Nelson 1988; Hulme 1989; Lo and Sene 1989; Binns 1990; Hellden 1991; United Nations Environment Programme 1991; Olssen 1993; Jacks 1994; Little 1994; Steen 1994).

While arid lands --- thus prone to desertification --- are found on all continents, the large majority are located in Africa and Asia. Therefore it is to be anticipated that desertification studies reflect this geographic distribution. The bulk of recent research has been focused on Africa (National Academy of Sciences 1975; Swift 1977; Franke and Chasin 1980; Adelfolalu 1983; Anderson 1984; O'Leary 1984; Steeds 1985; Thomson 1985, 1988; Wijkman and Timberlake 1985; El Moghraby et al. 1987; Garse and Steeds 1987; Glantz 1987; Starr 1987; Watts 1987; Ahkrona 1988; Kebbede and Jacob 1988; Mortimore 1988, 1989; Hulme 1989; Lo and Sene 1989; Fratkin 1991; Olsson 1993) and Asia (Schultz 1982; Fullen and Mitchell 1994).

In Section D attention shifts to the effects of development on the human-constructed environment as reflected in human settlements. With a few exceptions, the materials cited are concerned with the urban environment. While it is obvious that social and economic changes have also affected the environmental quality and settlement patterns of rural areas, the issues raised are substantively different and perhaps less complex. Moreover, because the significant rates of change --- demographic, economic, social, cultural and political --- are markedly higher in developing country cities than in the hinterlands, their environmental effects are more diverse and potentially more disruptive. Finally, the focus on

urban settlements is justified by UN estimates showing that by the turn of the century over half the population of developing countries will be living in urban localities.

Over the past two decades the literature on world, and particularly LDC, urbanization has grown rapidly (Berry 1973, 1990; Beier 1976; Ward 1976; Hawley 1981; Gilbert and Kugler 1982; Linn 1983; Gwynne 1985; Hardoy and Satterwaite 1986, 1989c; Brown and Jacobson 1987a, 1987b; Burton 1988; World Resources Institute et al. 1990; Bairoch 1991; Kasarda and Crenshaw 1991; Lowrey 1991; Hardoy et al. 1992b; Findley 1993; Kasarda and Parnell 1993). While the majority of this work has been concentrated on demographic and socioeconomic causes and consequences of rapid urbanization, it is increasingly evident that major threats to the sustainability of urban development stem from accompanying degradation of the physical environment.

Demographic analyses of third world urbanization have highlighted several principal issues. One concerns the problem of institutional adjustment to the sheer rate of urban growth (Newland 1980; Selvaratnam 1994), which is seen to be particularly serious in the increasing number of megacities (Nagpaul 1988; Sachs 1988; Teune 1988; Cohen 1993; Richardson 1993).² The personal and social consequences of high-density living continue to receive attention (Hawley 1972; Pendakur 1993) as does the role of migration in city growth (Chapman 1981; Roberts 1989; Goldstein 1993). Finally, some scholars have kept alive the debate over the consequences of "overurbanization" (Gugler 1988) and "urban primacy" (Frey et al. 1986).

Another body of research has been focused on the social and economic organization of cities. Among the principal topics are economic growth processes (Kelley and Richardson 1984; Oberai 1993; Sit 1993), job creation (Singh 1992; Rondinelli and Kasarda 1993a), and poverty (Hardoy and Satterwaite 1984; Campbell 1990; Gilbert 1994b). Provision of housing for the growing urban population has emerged as a critical issue (Hardoy and Satterwaite 1981; Stokes 1981; McAustan 1985; Brennan 1993) along with the longstanding interest in the organization of squatter settlements (e.g., Leeds 1969; Kentor 1981). Problems of urban transportation in the developing world are recognized, but require increased attention (cf. Lowe 1990).

The literature cited in the preceding paragraphs represents the usual concerns of social scientists with regard to Third World urbanization. Increasingly, however, the implications of urban growth and socioeconomic organization are interpreted within the conceptual framework of the ecosystem, resulting in a shift of attention to problems of the nonhuman environment. A number of overviews

² Megacities are typically defined as those with a population of 10 million or more inhabitants.

of the main issues are now available (United Nations 1974; Hardoy and Satterwaite 1989a, 1989b; Schteingart 1989; Pernia 1991; Hardoy et al. 1992a; Stren et al. 1992; White 1992; Pendakur 1993; Smith and Lee 1993; Wang 1995). Examples of principal substantive issues include land use (Dunkerley and Whitehead 1983), energy needs (Hawley 1995), health conditions, particularly those related to air and water pollution (World Health Organization 1992; Tsay 1994), and waste disposal (Blinckow 1986; Kungskulniti et al. 1991).

Concern over the issues mentioned above has produced a number of discussions of the need for reconsideration of urban policies in the developing world (Ward 1976; Dewar and Watson 1986; Lowe 1991, 1992; World Bank 1991; Perlman 1992; Rondinelli and Kasarda 1993b). Existing policies are seen as nonresponsive to emerging problems, particularly with regard to the environmental effects of modernization and development.

Because rapid urbanization is occurring throughout the developing regions, albeit unevenly, research on urban change and the environment is available for nations from all the major geopolitical areas. Representative studies for Africa include: Rondinelli 1988; Sammani et al. 1989; Stren and White 1989; Wekwete 1992; Amuzu and Leitmann 1994; and Stren 1994. Concerning Asia, see Chapman 1981; Hugo 1981; Smil 1984; Kirkby 1985; Cho and Bauer 1987; Fuchs et al. 1987; Nagpaul 1988b; Brennan and Richardson 1989; Center for Science and Environment 1989; Tang and Jenkins 1990; Pernia 1991, 1992; Qutub 1992; Yeung 1992; Goldstein 1993; Dowall 1994; Ro 1994; Hadiwinoto and Leitmann 1994; Tsay 1994; Wang 1995; and Webster 1995. And for the Latin America and Caribbean region, one can consult Faria 1988; Geisse and Sabatini 1988; Di Pace et al. 1992; Bahr and Mertons 1993; Potter 1993; Gilbert 1994a; and Roberts 1994.

In addition to the regional and national research cited above, a number of case studies or profiles have been prepared for major cities in the developing world. Analyses are available for Accra (Amuzu and Leitmann 1994), Bombay (Harris 1988), Cairo (Khalifa and Maheiddin 1986), Delhi (Nagpaul 1988a), Hong Kong (Yeung 1992), Khartoum (El Sammani et al. 1989), Jakarta (Hadiwinoto and Leitmann 1994), Lagos (McNulty and Adalemo 1988), Manila (Jiménez and Velásquez 1989), Mexico City (Schteingart 1988, 1989; Pezzoli 1991, 1993), Sao Paulo (Faria 1988; Kowarick and Campanario 1986), Shanghai (Murphey 1988; Hodder 1993), and Singapore (Kong and Yeoh 1994).

A. Environmental Quality and Development

- Alayev, E.B., Y.P. Badenkov, and N.A. Karavaeva. 1990. "The Russian Plain." Pp. 543-560 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Anderson, S. 1994. "Global Ecotoxicology: Management and Science." Pp. 261-275 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Antle, J.M. and G. Heidebrink. 1995. "Environment and Development: Theory and International Evidence." *Economic Development and Cultural Change* 43 (April): 603-625.
- Ayres, R.U., H.L. Beckers, and R.Y. Qassim. 1992. "Industry and Waste." Pp. 91-101 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Badenkov, Y.P., A.K. Borunov, A.F. Mandych, A.I. Romashkevich, and V.O. Targulian. 1990. "Caucasia." Pp. 513-531 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Bassow, W. 1979. "The Third World: Changing Attitudes toward Environmental Protection." *Annals of the American Academy of Political and Social Science* 444 (July): 112-120.
- Berg, H., M. Kiiibus, and N. Kautsky. 1992. "DDT and Other Insecticides in the Lake Kariba Ecosystem, Zimbabwe." *Ambio* 21 (7): 444-450.
- Berry, L., L.A. Lewis, and C. Williams. 1990. "East African Highlands." Pp. 533-542 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Brookfield, H., F.J. Lian, L. Kwai-Sim, and L. Potter. 1990. "Borneo and the Malay Peninsula." Pp. 495-512 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

- Brown, H.S., R.E. Kasperson, and S.W. Raymond. 1990. "Trace Pollutants." Pp. 437-454 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Brown, L.R. 1978. *The Twenty-Ninth Day: Accommodating Human Needs and Numbers to the Earth's Resources*. New York: W.W. Norton, pp. 45-70.
- Brown, L.R. 1985. "A False Sense of Security." Pp. 3-22 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and C. Flavin. 1988. "The Earth's Vital Signs." Pp. 1-21 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and S. Postel. 1987. "Thresholds of Change." Pp. 3-19 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and E.C. Wolf. 1986. "Assessing Ecological Decline." Pp. 22-39 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R., C. Flavin, and S. Postel. 1989. "A World at Risk." Pp. 3-20 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Bull, D. 1982. *A Growing Problem: Pesticides and the Third World Poor*. Oxford: OXFAM.
- Cairncross, F. 1993. "All that Remains: A Survey of Waste and the Environment." *The Economist* (29 May).
- Cairns, Jr., J. and J.R. Pratt. 1990. "Biotic Impoverishment: Effects of Anthropogenic Stress." Pp. 495-505 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Clark, R. and L. Timberlake. 1982. *Stockholm Plus Ten: Promises, Promises? The Decade since the 1972 UN Environment Conference*. London: Earthscan.
- Collins, J.L. 1986. "Smallholder Settlement of Tropical South America: The Social Causes of Ecological Destruction." *Human Organization* 45 (1): 1-10.
- Copeland, B.R. and M.S. Taylor. 1994. "North-South Trade and the Environment." *Quarterly Journal of Economics* 109 (August): 755-787.
- Cordell, H.K. 1990. "Outdoor Recreation and Wilderness." Pp. 242-268 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Costle, D.M. 1979. "The Spread of an Idea: Environmentalism on the International Scene." *Annals of the American Academy of Political and Social Science* 444 (July): 121-127.
- Dalby, S. 1992. "Ecopolitical Discourse: 'Environmental Security' and Political Geography." *Progress in Human Geography* 16 (4): 503-522.
- Darmstadter, J. 1992. "Energy Transitions." *Resources* 106 (Winter): 29-32.

- DeBardleben, J. (ed.) 1991. *To Breath Free: Eastern Europe's Environmental Crisis*. Baltimore: The Johns Hopkins University Press.
- Eckholm, E. 1976. *Losing Ground: Environmental Stress and World Food Prospects*. New York: W.W. Norton.
- Eckholm, E. 1982. *Down to Earth: Environment and Human Needs*. New York: W.W. Norton.
- Ehrlich, P.R. and J.P. Holdren. 1971. "Overpopulation and the Potential for Ecocide." Pp. 64-78 in *Global Ecology: Readings toward a Rational Strategy for Man*, eds. J.P. Holdren and P.R. Ehrlich. New York: Harcourt, Brace, Jovanovich.
- Eisenbud, M. 1990. "The Ionizing Radiations." Pp. 455-466 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- El-Hinnawi, E. and M.H. Hashmi. 1987. *State of the Environment*. London: Butterworth.
- Ezcurra, E. 1990. "The Basin of Mexico." Pp. 577-588 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Falkenmark, M. 1991. "Rapid Population Growth and Water Scarcity: The Predicament of Tomorrow's Africa." Pp. 81-94 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Foster, J.B. 1993. "Let Them Eat Pollution: Capitalism and the World Environment." *Monthly Review* 44 (January): 10-20.
- Frederick, K.D. 1992. "Managing Water for Economic, Environmental, and Human Health." *Resources* 106 (Winter): 22-25.
- Freedman, B. 1989. *Environmental Ecology: The Impacts of Pollution and Other Stresses on Ecosystem Structure and Functioning*. London: Academic Press.
- French, H.F. 1993. "Reconciling Trade and the Environment." Pp. 158-179 in *State of the World 1993*, by L.R. Brown et al. New York: W.W. Norton.
- Gore, A. 1992. *Earth in the Balance: Ecology and the Human Spirit*. Boston: Houghton Mifflin.
- Grösser, J.R., V. Hagelgans, T. Hentschel, and M. Priester. 1994. "Heavy-metals in Stream Sediments: A Gold-mining Area Near Los Andes, Southern Colombia, S.A." *Ambio* 23 (2/3): 146-149.

- Grossman, G.M. and A.B. Krueger. 1995. "Economic Growth and the Environment." *Quarterly Journal of Economics* 110 (May): 353-377.
- Hart, T. 1994. "Transport Choices and Sustainability: A Review of Changing Trends and Policies." *Urban Studies* 31 (May): 705-727.
- Hayes, D. 1979. *Pollution: The Neglected Dimensions*. Worldwatch Paper No. 27. Washington, DC: Worldwatch Institute.
- He Bochuan. 1991. *China on the Edge: The Crisis of Ecology and Development*. San Francisco: China Books.
- Heath, D.P. 1979. "Environmental Quality and Economic Development." *Annals of the American Academy of Political and Social Science* 444 (July): 46-55.
- Houghton, R.A. and D.L. Skole. 1990. "Carbon." Pp. 393-408 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Husar, R.B. and J.D. Husar. 1990. "Sulfur." Pp. 409-421 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Kane, H. with L. Starke. 1992. *Time for Change: A New Approach to Environment and Development*. Washington, DC: Island Press.
- Krader, L. 1970. "Environmental Threat and Social Organization." *Annals of the American Academy of Political and Social Science* 389 (May): 11-18.
- Leonard, H.J. 1988. *Pollution and the Struggle for the World Product: Multinational Corporations, Environment, and International Comparative Advantage*. Cambridge: Cambridge University Press.
- MacNeill, J., P. Winsemius, and T. Yakushiji. 1991. *Beyond Interdependence: The Meshing of the World's Economy and the Earth's Ecology*. Oxford: Oxford University Press.
- Mathews, J.T. 1989. "Redefining Security." *Foreign Affairs* 62 (Spring): 162-177.
- Mayo, A. and D.A. Mashauri. 1992. "Sources and Levels of Industrial Pollution in Dar es Salaam." *Ambio* 21 (6): 440-441.
- McNicoll, G. 1984. "Consequences of Rapid Population Growth: An Overview and Assessment." *Population and Development Review* 10 (2): 177-240.
- Mayur, R. 1979. "Environmental Problems of Developing Countries." *Annals of the American Academy of Political and Social Science* 444 (July): 89-101.
- Murray, D.L. 1995. *Cultivating Crisis: The Human Cost of Pesticides in Latin America*. Austin: University of Texas Press.
- Myers, N. 1986. "Economics and Ecology in the International Arena: The Phenomenon of 'Linked Linkages'." *Ambio* 15: 296-300.

- Myers, N. 1993a. "The Question of Linkages in Environment and Development." *BioScience* 43 (5): 302-310.
- Myers, N. 1993b. *Ultimate Security: The Environmental Basis of Political Stability*. New York: W.W. Norton.
- Nash, L. 1993. "Water Quality and Health." Pp. 25-39 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- Nriagu, J. 1994. "Industrial Activity and Metal Emissions." Pp. 277-285 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Pulliam, H.R. 1988. "Sources, Sinks, and Population Regulation." *American Naturalist* 132 (5): 652-661.
- Robins, N. and A. Trisoglio. 1992. "Restructuring Industry for Sustainable Development." Pp. 157-194 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Rodhe, H., J. Galloway, and Z. Dianwu. 1992. "Acidification in Southeast Asia -- Prospects for the Coming Decades." *Ambio* 21 (2): 148-150.
- Salati, E., M.J. Dourojeanni, F.C. Novaes, A.E. de Oliveira, R.W. Perritt, H.O.R. Schubart, and J.C. Umana. 1990. "Amazonia." Pp. 479-493 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Schlesinger, W.H. 1994. "The Vulnerability of Biotic Diversity." Pp. 245-260 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Schnoor, J. and V. Thomas. 1994. "Soil as a Vulnerable Environmental System." Pp. 233-244 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Schramm, G. and J.J. Warford (eds.) 1989. *Environmental Management and Economic Development*. Baltimore: The Johns Hopkins University Press.
- Shaw, R.P. 1989. "Rapid Population Growth and Environmental Degradation: Ultimate versus Proximate Factors." *Environmental Conservation* 16: 199-208.
- Shaw, R.P. 1992. "The Impact of Population Growth on Environment: The Debate Heats Up." *Environmental Impact Assessment Review* 12 (½): 11-36.
- Sheehan, H.E. and W.P. Weeden (eds.) 1993. *Toxic Circles*. New Brunswick, NJ: Rutgers University Press.

- Smil, V. 1990. "Nitrogen and Phosphorus." Pp. 423-436 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Smil, V., R. Goodland, and G. Toh. 1982. *The People's Republic of China: Environmental Aspects of Economic Development*. Washington, DC: Office of Environmental Affairs, The World Bank.
- Stigliani, W., P. Jaffé, and S. Anderberg. 1994. "Metals Loading of the Environment: Cadmium in the Rhine Basin." Pp. 287-296 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Swaney, J.A. 1994. "So What's Wrong with Dumping on Africa?" *Journal of Economic Issues* 28 (June): 367-377.
- Swearingen, W.D. and A. Bencherifa (eds.). 1996. *The North African Environment at Risk*. Boulder, CO: Westview Press.
- Thomas, V. and T. Spiro. 1994. "Emissions and Exposure to Metals: Cadmium and Lead." Pp. 297-318 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Tolba, M.K. and O.A. El-Kholy, in association with E. El-Hinnawi, M.W. Holdgate, D.F. McMichael, and R.E. Munn (eds.). 1992. *The World Environment 1972-1992*. London: Chapman and Hall.
- Tonna, A. 1995. "Pace of Change Gains Momentum in Asia-Pacific Region." *Waste Management & the Environment* 3 (September): 12-17.
- Turner, B.L., II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer (eds.). 1990. *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*. Cambridge: Cambridge University Press.
- Udo, R.K., O.O. Areola, J.O. Ayoade, and A.A. Afolayan. 1990. "Nigeria." Pp. 589-603 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Vitousek, P.M. 1992. "Global Environmental Change: An Introduction." *Annual Review of Ecological Systems* 23: 1-14.
- Ward, B. 1979. *Progress for a Small Planet*. New York: W.W. Norton.
- Ward, B. and R. Dubos. 1972. *Only One Earth: The Care and Maintenance of a Small Planet*. New York: W.W. Norton.

- Warford, J.J. 1989. "Environmental Management and Economic Policy in Developing Countries." Pp. 7-22 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Wenyong, M. 1992. "Environmental Degradation: A Challenge to Economic Development in Hainan Island." *Ambio* 21 (2): 183-184.
- Wijkman, A. and L. Timberlake. 1984. *Natural Disasters: Acts of God or Acts of Man?* London: Earthscan.
- Woodwell, G.M. 1985. "On the Limits of Nature." Pp. 47-65 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- World Commission on Environment and Development. 1987. *Our Common Future*. New York: Oxford University Press.
- Woube, M. 1994. "Environmental Degradation along the Blue Nile Basin." *Ambio* 23 (8): 519-520.
- Young, J.E. 1992a. *Mining the Earth*. Worldwatch Paper No. 109. Washington, DC: Worldwatch Institute.
- Young, J.E. 1992b. "Mining the Earth." Pp. 83-99 in *State of the World 1992*. New York: W.W. Norton
- Zuo Dakang and Zhang Peiyuan. 1990. "The Huang-Huai-Hai Plain." Pp. 473-477 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.

B. Atmosphere and Climate

- Abrahamson, D.E. 1989a. "Global Warming: The Issue, Impacts, Responses." Pp. 3-34 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Abrahamson, D.E. (ed.) 1989b. *The Challenge of Global Warming*. Washington, DC: Island Press.
- Andreae, M.O. 1991. "Biomass Burning in the Tropics: Impact on Environmental Quality and Global Climate." Pp. 268-291 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the *Population and Development Review*. New York: Oxford University Press.
- Andreae, M.O. and R.E. Dickenson. 1995. "Sustainability and the Changing Atmosphere: Assessing Changes in Chemical and Physical Climate." Pp. 117-134 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by E. Salati and R.L. Victoria, *Ibid*, pp. 134-136.]
- Andrén, O., X. Zhao, and X. Liu. 1994. "Climate and Litter Decomposition in Naiman, Inner Mongolia, China." *Ambio* 23 (3): 222-224.
- Arrhenius, E. and T.W. Waltz. 1990. *The Greenhouse Effect: Implications for Economic Development*. World Bank Discussion Papers, No. 78. Washington, DC: The World Bank.
- Ausubel, J.H. 1991. "Does Climate Still Matter?" *Nature* 25 (April): 649-652.
- Ayres, R.U., W.H. Schlesinger, and R.H. Socolow. 1994. "Human Impacts on the Carbon and Nitrogen Cycles." Pp. 121-155 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Balling, Jr., R.C. 1995. "Global Warming: Messy Models, Decent Data, and Pointless Policy." Pp. 83-107 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Barbier, E.B. 1989. "The Global Greenhouse Effect: Economic Impacts and Policy Considerations." *Natural Resources Forum* 13 (1): 20-32.
- Barney, G.O. et al. 1980. *The Global 2000 Report to the President*. Vol. II: *The Technical Report*. Washington, DC: U.S. Government Printing Office.
- Barron, W.F. and P.R. Hills. 1990. *Greenhouse Gas Emissions: Issues and Possible Responses in six Large Economy, Lower Income Asian Nations*. Working Paper No. 45. Hong Kong: Centre of Urban Studies and Urban Planning, University of Hong Kong.
- Bartiaux, F. and J.-P. van Ypersele. 1993. "The Role of Population Growth in Global Warming." Pp. 33-54 in *International Population Conference/Congres International de la Population: Montreal 1993*, Vol.

4. Liège, Belgium: International Union for the Scientific Study of Population.
- Bazzaz, F.A. 1990. "The Response of Natural Ecosystems to Rising Global CO₂ Levels." *Annual Review of Ecological Systems* 21: 167-196.
- Beckerman, W. 1991. "Global Warming: A Skeptical Economic Assessment." Pp. 52-85 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Beckerman, W. and J. Malkin. 1994. "How Much Does Global Warming Matter?" *The Public Interest*, No. 114 (Winter): 3-16.
- Birdsall, N. 1992. *Another Look at Population and Global Warming*. Policy Research Working Paper, WPS 1020. Washington, DC: The World Bank.
- Biswas, A.K. 1979. "Climate and Economic Development." *The Ecologist* 6: 188-196.
- Bohle, H.G., T.E. Downing, and M.J. Watts. 1994. "Climate Change and Social Vulnerability: Toward a Sociology and Geography of Food Insecurity." *Global Environmental Change* 4 (1): 37-48.
- Bongaarts, J. 1992. "Population Growth and Global Warming." *Population and Development Review* 18 (June): 299-319.
- Bormann, F.H. 1990. "Air Pollution and Temperate Forests: Creeping Degradation." Pp. 25-44 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Brenes Vargas, A. and V.F. Saborio Trejos. 1994. "Changes in General Circulation and its Influence on Precipitation Trends in Central America: Costa Rica." *Ambio* 23 (1): 87-90.
- Broadus, J.M. 1989. "Impacts of Future Sea Level Rise." Pp. 125-138 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Broecker, W.S. 1989. "Greenhouse Surprises." Pp. 196-209 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Broome, J. 1992. *Counting the Cost of Global Warming*. Cambridge: White Horse Press.
- Brown, N. 1989. "Climate, Ecology and International Security." *Survival* 31 (6): 519-532.
- Bryson, R.A. 1968. "All Other Factors Being Constant...: A Reconciliation of Several Theories of Climate Change." *Weatherwise* 21 (April): 56-62.
- Carbon Dioxide Assessment Committee, National Research Council. 1983. *Changing Climate*. Washington, DC: National Academy Press. [Excerpted in *Population and Development Review*, Vol. 10 (March 1984), pp. 161-167.]
- Chaturvedi, A.N. 1994. "Sequestration of Atmospheric Carbon in India's Forests." *Ambio* 23 (7): 460-461.

- Cline, W.R. 1992. *The Economics of Global Warming*. Washington, DC: Institute for International Economics.
- Cowling, E.B. 1991. "Acid Rain and Other Airborne Pollutants: Their Human Causes and Consequences." Pp. 205-220 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- Dotto, L. 1988. *Thinking the Unthinkable: Civilization and Rapid Climate Change*. Waterloo, Ontario: Wilfred Laurier University Press.
- Downing, T.E. and M.L. Parry. 1994. "Climate Change and Population Supporting Capacity: Potential Impacts and Vulnerable Regions." Pp. 153-178 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Easterling, W.E. 1990. "Climate Trends and Prospects." Pp. 32-55 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Eddy, J.A. 1994. "Solar History and Human Affairs." *Human Ecology* 22 (March): 23-35.
- Elsom, D.M. 1992. *Atmospheric Pollution: A Global Problem*. Second edition. Oxford: Basil Blackwell.
- Falk, J. and A. Brownlow. 1989. *The Greenhouse Challenge: What's to be Done?* New York: Penguin Books.
- Firor, J.W. 1988. "The Heating Up of the Climate." Pp. 52-66 in *The Earth's Fragile Systems: Perspectives on Global Change*, eds. T. Kristensen and J.P. Paludan. Boulder, CO: Westview Press. (Also see comments, *Ibid*, pp. 67-70.)
- Galloway, J.N., L. Hiram II, and P.S. Kasibhatia. 1994. "Year 2020: Consequences of Population Growth and Development on Deposition of Oxidized Nitrogen." *Ambio* 23 (2/3): 120-123.
- Galloway, J.N., Zhao Dianwu, Xiong Jiling, and G.E. Likens. 1987. "Acid Rain: China, United States, and Remote Areas." *Science* 236 (19 June): 1559-1662.
- Galloway, P.R. 1986. "Long-Term Fluctuations in Climate and Population in the Preindustrial Era." *Population and Development Review* 12 (March): 1-24.
- Glantz, M.H. 1991. "On the Interactions Between Climate and Society." Pp. 179-200 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press. [Also see R.E. Benedick, "Comment: Environmental Risk and Policy Response." *Ibid*, pp. 201-204.]

- Gleick, P.H. 1989. "Climate Change and International Politics: Problems Facing Developing Countries." *Ambio* 18 (6): 333-339.
- Goklany, I.M. 1995. "Richer is Cleaner: Long-Term Trends in Global Air Quality." Pp. 339-377 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Golitsyn, G.S., G.A. McBean and E. Sanhueza. 1992. "Atmosphere and Climate." Pp. 141-155 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Graedel, T.E. and P.J. Crutzen. 1989. "The Changing Atmosphere." *Scientific American* 261 (September): 28-36.
- Graedel, T.E. and P.J. Crutzen. 1990. "Atmospheric Trace Constituents." Pp. 295-311 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Graedel, T.E. and P.J. Crutzen. 1993. *Atmospheric Change: An Earth System Perspective*. New York: W.H. Freeman.
- Gribbin, J. 1988. *The Hole in the Sky: Man's Threat to the Ozone Layer*. London: Corgi Books.
- Gribbin, J.R. 1990. *Hothouse Earth: The Greenhouse Effect and Gaia*. London: Grove Weidenfeld.
- Gunn, J.D. 1994. "Introduction: A Perspective from the Humanities-Science Boundary." *Human Ecology* 22 (March): 1-22.
- Gunn, J.D. and J. W. Grzymala-Busse. 1994. "Global Temperature Stability by Rule Induction: An Interdisciplinary Bridge." *Human Ecology* 22 (March): 59-81.
- Hansen, J.E. 1989. "The Greenhouse Effect: Impacts on Current Global Temperature and Regional Heat Waves." Pp. 35-43 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Holdren, J.P. 1971. "Global Thermal Pollution." Pp. 85-88 in *Global Ecology: Readings toward a Rational Strategy for Man*, eds. J.P. Holdren and P.R. Ehrlich. New York: Harcourt, Brace, Jovanovich.
- Houghton, R.A. and D.L. Skole. 1990. "Carbon." Pp. 393-408 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Houghton, R.A. and G.M. Woodwell. 1989. "Global Climatic Change." *Scientific American* 260 (4): 36-44.

- Hoyle, R. 1993a. "The Climate Change Factor." Pp. 505-534 in *Gale Environmental Almanac*, ed. R. Hoyle. Detroit: Gale Research, Inc.
- Hoyle, R. 1993b. "Reducing the Risk: Pollution and Health." Pp. 603-636 in *Gale Environmental Almanac*, ed. R. Hoyle. Detroit: Gale Research, Inc.
- Hulme, M. 1994. "Global Warming." *Progress in Physical Geography* 18 (3): 401-410.
- Jager, J. and R.G. Barry. 1990. "Climate." Pp. 335-351 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Kellogg, W.W. and R. Schwere. 1982. "Society, Science, and Climate Change." *Foreign Affairs* 60 (Summer): 1076-1109.
- Kutzbach, J.E. 1989. "Historical Perspectives: Climatic Changes Throughout the Millennia." Pp. 50-61 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Leggett, J. (ed.) 1990. *Global Warming: The Greenpeace Report*. New York: Oxford University Press.
- Leighton, M. and N. Wirawan. 1986. "Catastrophic Drought and Fire in Borneo Tropical Rain Forest Associated with the 1982-1983 El Niño Southern Oscillation Event." Pp. 75-102 in *Tropical Rainforests and the World Atmosphere*, ed. G.T. Prance. Boulder, CO: Westview Press.
- Leonard, H.J. 1985. "Politics and Pollution from Urban and Industrial Development." Pp. 263-291 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.
- Liverman, D. 1990. "Drought Impacts in Mexico: Climate, Agriculture, Technology, and Land Tenure in Sonora and Puebla." *Annals of the Association of American Geographers* 80 (March): 49-72.
- Liverman, D. 1992. "The Impacts of Global Warming in Mexico: Uncertainty, Vulnerability, and Response." Pp. 44-68 in *The Regions and Global Warming: Impacts and Response Strategies*, eds. J. Schmandt and J. Clarkson. New York: Oxford University Press.
- Liverman, D. and K. O'Brien. 1991. "Global Warming and Climate Change in Mexico." *Global Environmental Change* 1 (4): 351-364.
- Lockwood, J.G. 1986. "The Causes of Drought with Particular Reference to the Sahel." *Progress in Physical Geography* 10 (2): 111-119.
- Loganathan, B.G. and K. Kannan. 1994. "Global Organochlorine Contamination Trends: An Overview." *Ambio* 23 (3): 187-191.

Ecological Impacts of Third World Development

- MacDonald, G. 1989. "Scientific Basis for the Greenhouse Effect." Pp. 123-145 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Mahlman, J.D. 1989. "Mathematical Modeling of Greenhouse Warming: How Much Do We Know?". Pp. 62-72 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Manabe, S., R.J. Stouffer, and M.J. Spelman. 1994. "Response of a Coupled Ocean-Atmosphere Model to Increasing Atmospheric Carbon Dioxide." *Ambio* 23 (1): 44-49.
- McCormick, J. 1985. *Acid Earth: The Global Threat of Acid Pollution*. London: Earthscan.
- McElroy, MB and S.C. Wofsy. 1989. "Tropical Forests: Interactions with the Atmosphere." Pp. 33-60 in *Tropical Rainforests and the World Atmosphere*, ed. G.T. Prance. Boulder, CO: Westview Press.
- Mintzer, I.M. 1987. *A Matter of Degrees: The Potential for Controlling the Greenhouse Effect*. Washington, DC: World Resources Institute.
- Mintzer, I.M. 1990. "Energy, Greenhouse Gases, and Climate Change." *Annual Review of Energy* 15: 513-550.
- Moomaw, W. and M. Tullis. 1994. "Charting Development Paths: A Multicountry Comparison of Carbon Dioxide Emissions." Pp. 157-172 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Mooney, H.A. and G.W. Koch. 1994. "The Impact of Rising CO₂ Concentrations on the Terrestrial Biosphere." *Ambio* 23 (1): 74-76.
- Moore, T.G. 1995. "Why Global Warming Would be Good for You." *The Public Interest*, No. 18 (Winter): 83-99.
- Morrisette, P.M. and N.J. Rosenberg. 1992. "Climate Variability and Development." *Resources* 106 (Winter): 18-22.
- National Academy of Sciences. 1979. *Carbon Dioxide and Climate: A Scientific Assessment*. Washington, DC: National Academy of Sciences.
- National Academy of Sciences. 1982. *Carbon Dioxide and Climate: A Second Assessment*. Washington, DC: National Academy Press.
- National Academy of Sciences. 1989. *Ozone Depletion, Greenhouse Gases, and Climate Change*. Washington, DC: National Academy Press.
- Newell, R.E., H.G. Reichle, Jr., and W. Seller. 1989. "Carbon Monoxide and the Burning Earth." *Scientific American* 261 (October): 58-64.
- Nordhaus, W.D. 1991a. "Economic Approaches to Greenhouse Warming." Pp. 33-66 in *Global Warming: Economic Policy Responses*, eds. R. Dornbusch and J.M. Poterba. Cambridge, MA: The MIT Press.
- Nordhaus, W.D. 1991b. "The Costs of Slowing Climate Change: A Survey." *The Energy Journal* 12 (1): 37-65.

- Nordhaus, W.D. 1991c. "To Slow or Not to Slow: The Economics of the Greenhouse Effect." *Economic Journal* 101: (July): 920-937.
- Obasi, G.O.P. 1992. "Global Warming and Global Development." Pp. 122-128 in *Change: Threat or Opportunity?* Vol. V: *Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Oppenheimer, M. 1990. "The Atmosphere and the Future of the Biosphere: Points of Interactive Disturbance." Pp. 111-130 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Orr, D.W. 1992. "Pascal's Wager and Economics in a Hotter Time." *Ecological Economics* 6 (1): 1-6.
- Parikh, J.K. and J.P. Painuly. 1994. "Population, Consumption Patterns and Climate Change: A Socioeconomic Perspective from the South." *Ambio* 23 (7): 434-437.
- Perlack, R.D., M. Russell, and Shen Zhongmin. 1993. "Reducing Greenhouse Gas Emissions in China: Institutional, Legal and Cultural Constraints." *Global Environmental Change* 3 (1): 78-100.
- Peters, R.L. 1989a. "Effects of Global Warming on Biological Diversity." Pp. 82-95 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Peters, R.L. 1989b. "Threats to Biological Diversity as the Earth Warms." Pp. 139-158 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Prinn, R.G. 1994. "The Interactive Atmosphere: Global Atmospheric-Biospheric Chemistry." *Ambio* 23 (1): 50-61.
- Rathjens, G.W. 1991. "Energy and Climate Change." Pp. 154-186 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- "Reading the Patterns." *The Economist* (1 April 1995): 75-77.
- Regens, J.L. and R.W. Rycroft. 1988. *The Acid Rain Controversy*. Pittsburgh: University of Pittsburgh Press.
- Reilly, J., N. Hohmann, and S. Kane. 1994. "Climate Change and Agricultural Trade: Who Benefits, Who Loses?" *Global Environmental Change* 4 (1): 24-36.
- Rifkin, J. with T. Howard. 1989. *Entropy: Into the Greenhouse World*. Revised Edition. New York: Bantam.
- Roan, S.L. 1989. *Ozone Crisis: The Fifteen Year Evolution of a Sudden Global Emergency*. New York: Wiley.
- Rodhe, H. and R. Herrera (eds.). 1988. *Acidification in Tropical Countries*. New York: Wiley.

- Root, T.L. and S.H. Schneider. 1995. "Ecology and Climate: Research Strategies and Implications." *Science* 269 (21 July): 334-341.
- Rosenzweig, C. and M.L. Parry. 1994. "Potential Impact of Climate Change on World Food Supply." *Nature* 367 (13 January): 133-138.
- Ross, M. 1994. "Automobile Fuel Consumption and Emissions --- Effects of Vehicle Driving Characteristics." *Annual Review of Energy and the Environment* 19:75-112.
- Schelling, T.C. 1992. "Some Economics of Global Warming." *American Economic Review* 82 (March): 1-14.
- Schmandt, J. and J. Clarkson (eds.). 1992. *The Regions and Global Warming: Impacts and Response Strategies*. New York: Oxford University Press.
- Schneider, S.H. 1989a. *Global Warming: Are We Entering the Greenhouse Century?* San Francisco: Sierra Club Books.
- Schneider, S.H. 1989b. "Global Warming: Is It Real and Should It be Part of a Global Change Program?" Pp. 209-219 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Schneider, S.H. 1989c. "The Changing Climate." *Scientific American* 261 (September): 38-47.
- Schneider, S.H. 1989d. "The Greenhouse Effect: Science and Policy." *Science* 243 (10 February): 771-780.
- Schneider, S.H. 1994. "Detecting Climate Change Signals: Are There Any Finger Prints?" *Science* 263 (21 January): 341-347.
- Smil, V. 1984. *The Bad Earth: Environmental Degradation in China*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1990a. "Nitrogen and Phosphorus." Pp. 423-436 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Smil, V. 1990b. "Planetary Warming: Realities and Responses." *Population and Development Review* 16 (March): 1-29.
- Smil, V. 1991. "Population Growth and Nitrogen: An Exploration of a Critical Existential Link." *Population and Development Review* 17 (4): 569-601.
- Solomon, S. 1989. "The Earth's Fragile Ozone Shield." Pp. 73-77 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Southworth, F., V.H. Dale, and R.V. O'Neill. 1991. "Contrasting Patterns of Land Use in Rondonia, Brazil: Simulating the Effects of Carbon Release." *International Social Science Journal* 130 (November): 681-698.

- Titus, J.G. 1989. "The Causes and Effects of Sea Level Rise." Pp. 161-195 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Topping, J. 1992. "Likely Impact of Global Warming on Developing Countries." Pp. 129-144 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Ungur, S. 1992. "The Rise and (Relative) Decline of Global Warming as a Social Problem." *Sociological Quarterly* 33 (Winter): 483-502.
- Vitousek, P.M. 1989. "Terrestrial Ecosystems." Pp. 78-83 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Watson, J.G. and J.C. Chow. 1994. "Clear Sky Visibility as a Challenge for Society." *Annual Review of Energy and the Environment* 19: 241-266.
- Wellburn, A. 1988a. *Air Pollution and Acid Rain: The Biological Impact*. New York: Wiley.
- Wellburn, A. 1988b. *Air Pollution and Acid Rain: The Global Threat of Acid Pollution*. London: Earthscan.
- Wirth, D.A. 1989. "Climate Chaos." *Foreign Policy* 74 (Spring): 3-22.
- Wirth, D.A. 1991. "Catastrophic Climate Change." Pp. 381-400 in *World Security: Trends and Challenges*, eds. M.T. Klare and D.C. Thomas. New York: St. Martin's Press.
- Woodwell, G.M. 1989. "Biotic Causes and Effects of the Disruption of the Global Carbon Cycle." Pp. 71-81 in *The Challenge of Global Warming*, ed. D.E. Abrahamson. Washington, DC: Island Press.
- Woodwell, G.M. 1990. "The Earth Under Stress: A Transition to Climatic Instability Raises Questions about Patterns of Impoverishment." Pp. 3-7 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Woodwell, G.M. 1992. "The Role of Forests in Climate Change." Pp. 75-91 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Woodwell, G.M. and R.A. Houghton. 1990. "The Experimental Impoverishment of Natural Communities: Effects of Ionizing Radiation on Plant Communities, 1961-1976." Pp. 9-24 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- World Health Organization. 1992. *Urban Air Pollution in Megacities of the World*. London: Blackwell Reference Publishing.

World Resources Institute, The United Nations Environment Programme, and The United Nations Development Programme. 1992. *World Resources 1992-93*. New York: Oxford University Press.

Zhao Dianwu and Sun Bozen. 1986. "Air Pollution and Acid Rain in China." *Ambio* 15 (1): 2-5.

C. Land Degradation and Desertification

- Abel, N.O.J. and P.M. Blaikie. 1989. "Land Degradation, Stocking Rates and Conservation Policies in the Communal Highlands of Botswana and Zimbabwe." *Land Degradation and Rehabilitation* 1: 101-123.
- Adefolalu, D.O. 1983. "Desertification in the Sahel." Pp. 402-438 in *Natural Resources in Tropical Countries*, ed. Ooi Jin Bee. Singapore: Singapore University Press.
- Ahlcrona, E. 1988. *The Impact of Climate and Man on Land Transformation in Central Sudan*. Lund, Sweden: Lund University Press.
- Ahmad, Y.J. and M. Kassas. 1987. *Desertification: Financial Support for the Biosphere*. London: Hodder and Stoughton.
- Anderson, D. 1984. "Depression, Dust Bowl, Demography, and Drought: The Colonial State and Soil Conservation in East Africa During the 1930s." *African Affairs* 83: 321-343.
- Barrow, C.J. 1991. *Land Degradation: Development and Breakdown of Terrestrial Environments*. Cambridge: Cambridge University Press.
- Bedoya, G.E. 1987. "Intensification and Degradation in the Agricultural Systems of the Peruvian Upper Jungle: The Upper Huallaga Case." Pp. 290-315 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Beinhart, W. 1984. "Soil Erosion, Conservation, and Ideas about Development in Southern Africa." *Journal of Southern African Studies* 11 (1): 52-83.
- Binns, T. 1990. "Is Desertification a Myth?" *Geography* 75 (1): 106-113.
- Biot, Y., M. Sessay, and M. Stocking. 1989. "Assessing the Suitability of Agricultural Land in Botswana and Sierra Leone." *Land Degradation and Rehabilitation* 1: 263-278.
- Blaikie, P. 1985. *The Political Economy of Soil Erosion in Developing Countries*. New York: Longman.
- Blaikie, P. 1988. "The Explanation of Land Degradation in Nepal." Pp. 132-158 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.
- Blaikie, P., H. Brookfield, et al. 1987. *Land Degradation and Society*. New York: Methuen.
- Brown, L.R. 1978. *The Worldwide Loss of Cropland*. Worldwatch Paper No. 24. Washington, DC: Worldwatch Institute.
- Brown, L.R. and E.C. Wolf. 1984. *Soil Erosion: Quiet Crisis in the World Economy*. Worldwatch Paper No. 60. Washington, DC: Worldwatch Institute.
- Caldwell, J.C. 1975. *The African Drought and its Demographic Implications*. New York: The Population Council.

- Caldwell, J.C. 1984. *Desertification: Demographic Evidence*. Occasional Paper No. 37. Canberra: The Australian National University.
- Cloudsley-Thompson, J. 1988. "Desertification or Sustainable Yields from Arid Environments?" *Environmental Conservation* 15 (3): 197-204.
- Cook, H.J. 1983. "The Struggle Against Environmental Degradation --- Botswana's Experience." *Desertification Control Bulletin* 8: 9-15.
- Conant, F.P. 1982. "Thorns Paired, Sharply Recurved: Cultural Controls and Rangeland Quality in East Africa." Pp. 111-122 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Coxhead, I. and S. Jayasuriya. 1994. "Technical Change in Agriculture and Land Degradation in Developing Countries: A General Equilibrium Analysis." *Land Economics* 70 (February): 20-37.
- Douglas, I. 1990. "Sediment Transfer and Siltation." Pp. 215-234 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Downs, R.E. and S. Reyna (eds.). 1988. *Land and Society in Contemporary Africa*. Hanover, NH: New England Universities Press.
- Dregne, H.E. 1977. "Desertification of Arid Lands." *Economic Geography* 53 (4): 322-331.
- Dregne, H.E. 1983. *Desertification of Arid Lands*. New York: Harwood Academic Publishers.
- Dregne, H.E. 1984. "Combating Desertification: Evaluation of Progress." *Environmental Conservation* 11 (2): 115-121.
- Dregne, H.E. 1985. "Aridity and Land Degradation: Guarded Optimism for the Future of Arid Lands." *Environment* 27 (8): 16-33.
- Eckholm, E. and L.R. Brown. 1977. *Spreading Deserts --The Hand of Man*. Worldwatch Paper No. 13. Washington, DC: Worldwatch Institute.
- El-Moghraby, A.I., O.M. Ali, and M.T. El-Seed. 1987. "Desertification in Western Sudan and Strategies for Rehabilitation." *Environmental Conservation* 14 (3): 227-231.
- Franke, R.W. and B.H. Chasin. 1980. *Seeds of Famine: Ecological Destruction and the Development Dilemma in the West African Sahel*. Totowa, NJ: Rowman & Allanheld.
- Fratkin, E. 1991. *Surviving Drought and Development: Ariaal Pastoralists of Northern Kenya*. Boulder, CO: Westview Press.
- Fullen, M.A. and D.J. Mitchell. 1994. "Desertification and Reclamation in North-Central China." *Ambio* 23 (2/3): 131-135.
- Glantz, M.H. (ed.) 1977. *Desertification: Environmental Degradation in and Around Arid Lands*. Boulder, CO: Westview Press.

- Glantz, M.H. 1987. *Drought and Hunger in Africa: Denying Famine a Future*. New York: Cambridge University Press.
- Glantz, M.H. and N.S. Orlovsky. 1986. "Desertification: Anatomy of a Complex Environmental Process." Pp. 213-229 in *Natural Resources and People: Conceptual Issues in Interdisciplinary Research*, eds. K.A. Dahlberg and J.W. Bennett. Boulder, CO: Westview Press.
- Gorse, J.E. and D.R. Steeds. 1987. *Desertification in the Sahelian and Sudanian Zones of West Africa*. World Bank Technical Paper No. 61. Washington, DC: The World Bank.
- Gradus, Y. (ed.) 1985. *Desert Development: Man and Technology in Sparselands*. Dordrecht: D. Reidel Publishing Co.
- Grainger, A. 1982. *Desertification: How People Make Deserts, How they Can Stop, and Why they Don't*. London: Earthscan.
- Hanson, H. and G. Lindh. 1993. "Coastal Erosion: An Escalating Environmental Threat." *Ambio* 22 (4): 188-195.
- Hare, F.K., R. Kates, and A. Warren. 1977. "The Making of Deserts: Climate, Ecology, and Society." *Economic Geography* 53 (4): 332-345.
- Heathcote, R.L. 1983. *The Arid Lands: Their Use and Abuse*. London: Longman.
- Hellden, U. 1991. "Desertification --- Time for an Assessment?" *Ambio* 20 (6): 372-383.
- Hulme, M. 1989. "Is Environmental Degradation Causing Drought in the Sahel? An Assessment from Recent Empirical Research." *Geography* 74 (1): 38-46.
- Jacks, B. 1994. "Living Conditions and Nutrition of Some Tamasheq Groups in Mali under the Influence of Drought." *Ambio* 23 (7): 438-445.
- Kassas, M. 1987. "Drought and Desertification." *Land Use Policy* 4 (4): 389-400.
- Kebbede, G. and M.J. Jacob. 1988. "Drought, Famine and the Political Economy of Environmental Degradation in Ethiopia." *Geography* 73 (1): 65-70.
- Kovda, V.A. 1980. *Land Aridization and Drought Control*. Boulder, CO: Westview Press.
- Larmuth, J. 1979. "Desert and Man: A Future?". *Third World Quarterly* 1 (3): 104-111.
- Le Houerou, H.N. 1977. "Nature and Causes of Desertification." Pp. 17-38 in *Desertification: Environmental Degradation in and Around Arid Lands*, ed. M.H. Glantz. Boulder, CO: Westview Press.
- Little, P.D. 1994. "The Social Context of Land Degradation ("Desertification") in Dry Regions." Pp. 209-251 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Liverman, D. 1990. "Drought Impacts in Mexico: Climate, Agriculture, Technology, and Land Tenure in Sonora and Puebla." *Annals of the Association of American Geographers* 80 (March): 49-72.

- Lo, H.M. and A. Sene. 1989. "Human Action and the Desertification of the Sahel." *International Social Science Journal* 121 (August): 449-456.
- Logan, T.J. and L.R. Cooperband. 1987. "Soil Erosion on Cultivated Steeplands of the Humid Tropics and Subtropics." Pp. 21-38 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Mabbutt, J.A. 1984. "A New Global Assessment of the Status and Trends of Desertification." *Environmental Conservation* 11 (2): 103-113.
- Mabbutt, J.A. and A.W. Wilson. 1980. *Social and Environmental Aspects of Desertification*. Tokyo: United Nations University.
- Millikan, B.H. 1992. "Tropical Deforestation, Land Degradation, and Society: Lessons from Rondonia, Brazil." *Latin American Perspectives* 19 (Winter): 45-72.
- Mortimore, M. 1988. "Desertification and Resilience in Semi-arid West Africa." *Geography* 73 (1): 61-64.
- Mortimore, M. 1989. *Adapting to Drought: Farmers, Famines and Desertification in West Africa*. New York: Cambridge University Press.
- National Academy of Sciences. 1975. *Arid Lands of Sub-Saharan Africa*. Washington, DC: National Academy of Sciences.
- Nelson, R. 1988. *Dryland Management: The 'Desertification' Problem*. Environmental Department Working Paper No. 8. Washington, DC: The World Bank.
- O'Leary, M. 1984. "Ecological Villains or Economic Victims: The Case of the Rendille in Northern Kenya." *Desertification Control Bulletin* 11: 17-21.
- Olsson, L. 1993. "On the Causes of Famine --- Drought, Desertification and Market Failure in the Sudan." *Ambio* 22 (6): 395-403.
- Pimentel, D. (ed.). 1993. *World Soil Erosion and Conservation*. Cambridge: Cambridge University Press.
- Reining, P. 1978. *Handbook of Desertification Indicators*. Washington, DC: American Association for the Advancement of Science.
- Repetto, R. 1986. "Soil Loss and Population Pressure in Java." *Ambio* 15 (1): 14-18.
- Richmond, A. 1977. "Research Priorities and Organization for Arid Zone Development." Pp. 245-254 in *Arid Zone Development: Potentialities and Problems*, eds. Y. Mundlak and S.F. Singer. Boston: Ballinger.
- Schulz, A. 1982. "Reorganizing Deserts: Mechanization and Marginal Lands in Southwest Asia." Pp. 27-41 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Sheehy, D.P. 1992. "A Perspective on Desertification of Grazingland Ecosystems in North China." *Ambio* 21 (4): 303-307.

- Smil, V. 1984. *The Bad Earth: Environmental Degradation in China*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1993. *China's Environmental Crisis: An Inquiry into the Limits of National Development*. Armonk, NY: M.E. Sharpe.
- Southgate, D. 1990. "The Causes of Land Degradation along 'Spontaneously' Expanding Agricultural Frontiers in the Third World." *Land Economics* 66 (February): 93-101. [Also see "Comment" by B.A. Larson, *Ibid* 67 (May), pp. 260-266.]
- Southgate, D. and M. Whitaker. 1992. "Promoting Resource Degradation in Latin America: Tropical Deforestation, Soil Erosion, and Coastal Ecosystem Disturbance in Ecuador." *Economic Development and Cultural Change* 40 (July): 787-807.
- Spooner, B. 1982. "Rethinking Desertification: The Social Dimension." Pp. 1-24 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Spooner, B. 1989. "Desertification: The Historical Significance." Pp. 111-162 in *African Food Systems in Crisis Part I: Microperspectives*, eds. R. Huss-Ashmore and S.H. Katz. New York: Gordon and Breach.
- Spooner, B. and H.S. Mann (eds.) 1982. *Desertification and Development: Dryland Ecology in Social Perspective*. New York: Academic Press.
- Stahl, M. 1993. "Land Degradation in East Africa." *Ambio* 22 (8): 505-508.
- Starr, M. 1987. "Risk, Environmental Variability and Drought-Induced Impoverishment: The Pastoral Economy of Central Niger." *Africa* 57 (1): 29-50.
- Steeds, D. 1985. *Desertification in the Sahelian and Sudanian Zones in West Africa*. Washington, DC: The World Bank.
- Steen, E. 1994. "Drylands of the Third World: Potential for Future Development." *Ambio* 23 (7): 458-460.
- Stryker, J.D. 1990. "Technology, Human Pressures, and Ecology in the Arid and Semi-Arid Tropics." Pp. 87-109 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- Swift, J. 1977. "Sahelian Pastoralists: Underdevelopment, Desertification, and Famine." *Annual Review of Anthropology* 6: 457-478.
- Thomson, J.T. 1985. "The Politics of Desertification in Marginal Environments: The Sahelian Case." Pp. 227-262 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.

- Thomson, J.T. 1988. "Deforestation and Desertification in Twentieth-Century Arid Sahelian Africa." Pp. 70-90 in *World Deforestation in the Twentieth Century*, eds. J.F. Richards and R.P. Tucker. Durham, NC: Duke University Press.
- United Nations Environment Programme. 1991. "A New Assessment of the World Status of Desertification." *Desertification Control Bulletin* 20: 6-18.
- Verstraete, M.M. 1983. "Another Look at Desertification." Pp. 213-228 in *Origin and Evolution of Deserts*, eds. S.G. Wells and D.R. Haragen. Albuquerque: University of New Mexico Press.
- Walls, J. 1980. *Land, Man and Sand*. New York: Macmillan.
- Warren, A. and C.T. Agnew. 1988. *An Assessment of Desertification and Land Degradation in Arid and Semi-Arid Areas*. London: International Institute for Environment and Development, Paper No. 2.
- Warren, A. and J.K. Maizels. 1977. "Ecological Change and Desertification." Pp. 169-260 in *Desertification: Its Causes and Consequences*, ed. United Nations Desertification Secretariat. New York: Pergamon.
- Watts, M. 1983. *Silent Violence*. Berkeley: University of California Press.
- Watts, M. 1987. "Drought, Environment and Food Security: Some Reflections on Peasants, Pastoralists, and Commoditization in Dryland West Africa." Pp. 171-211 in *Drought and Hunger in Africa*, ed. M.H. Glantz. New York: Cambridge University Press.
- Wijkman, A. and L. Timberlake. 1985. "Is the African Drought an Act of God or of Man?" *The Ecologist* 15 (2): 9-18.
- Zhao Qiguo. 1994. "Land Degradation and Improvement." Pp. 137-148 in *Population --- The Complex Reality: A Report of the Population Summit of the World's Scientific Societies*, ed. F. Graham-Smith. Golden, CO: North American Press.
- Zimmerer, K.S. 1993. "Soil Erosion and Labor Shortages in the Andes With Special Reference to Bolivia, 1953-91: Implications for 'Conservation-With-Development'." *World Development* 21 (10): 1659-1675.

D. Human Settlements

- Amuzu, A.T. and J. Leitmann. 1994. "Environmental Profile of Accra, Ghana." *Cities* 11 (2): 5-9.
- Bähr, J. and G. Mertins. 1993. "Urbanisation in Latin America." *Applied Geography and Development* 41: 89-109.
- Bairoch, P. 1991. *Cities and Economic Development from the Dawn of History to the Present*. Chicago: University of Chicago Press.
- Beier, G.J. 1976. "Third World Cities: Can They Cope?" *Population Bulletin* 31 (December).
- Berry, B.J.L. 1973. *The Human Consequences of Urbanization: Divergent Paths in the Urban Experience in the Twentieth Century*. New York: St. Martin's Press.
- Berry, B.J.L. 1990. "Urbanization." Pp. 103-119 in *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere over the Past 300 Years*, eds. B.L. Turner II, W.C. Clark, R.W. Kates, J.F. Richards, J.T. Mathews, and W.B. Meyer. Cambridge: Cambridge University Press.
- Blinchow, M. 1986. "Scavengers and Recycling: A Neglected Domain of Production." *Labour, Capital and Society* 19 (1): 94-115.
- Brennan, E.M. 1993. "Urban Land and Housing Issues Facing the Third World." Pp. 74-91 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Brennan, E.M. and H.W. Richardson. 1989. "Asia's Mega-City Characteristics, Problems, and Policies." *International Regional Science Review* 12: 117-129.
- Brown, L.R. and J. Jacobson. 1987a. "Assessing the Future of Urbanization." Pp. 38-56 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and J. Jacobson. 1987b. *The Future of Urbanization: Facing the Ecological and Economic Constraints*. Worldwatch Paper No. 77. Washington, DC: Worldwatch Institute.
- Burton, I. 1988. "Dimensions of a New Vulnerability: The Significance of Large-Scale Urbanization in Developing Countries." Pp. 30-50 in *The Earth's Fragile Systems: Perspectives on Global Change*, eds. T. Kristensen and J.P. Paludan. Boulder, CO: Westview Press. [Also see comments, *Ibid*, p. 51.]
- Campbell, T. 1990. "Urban Development in the Third World: Environmental Dilemmas and the Urban Poor." Pp. 165-187 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.

- Center for Science and Environment. 1989. "The Environmental Problems Associated with India's Major Cities." *Environment and Urbanization* 1 (1). 7-15.
- Chapman, M. 1981. "Policy Implications of Circulation: Some Answers from the Grassroots." Pp. 71-87 in *Population Mobility and Development: Southeast Asia and the Pacific*, eds. G.W. Jones and H.V. Richter. Development Studies Centre Monograph No. 27. Canberra: Australian National University.
- Cho, L.J. and J.G. Bauer. 1987. "Population Growth and Urbanization: What Does the Future Hold?" Pp. 15-37 in *Urbanization and Urban Policies in Pacific Asia*, eds. R.J. Fuchs, G.W. Jones, and E. del Mar Pernia with S.E. Ward. Boulder, CO: Westview Press.
- Cohen, M. 1993. "Megacities and the Environment." *Finance and Development* 30 (June): 44-47.
- Dewar, D., A. Todes, and V. Watson. 1986. *Regional Development and Settlement Policy: Premises and Prospects*. London: Allen & Unwin.
- Di Pace, M., S. Federovisky, J.E. Hardoy, J.H. Morello, and A. Stein. 1992. "Latin America." Pp. 205-227 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.
- Dowall, D.E. 1994. "Urban Residential Redevelopment in the People's Republic of China." *Urban Studies* 31 (November): 1497-1516.
- Dunkerley, H.B. and C. Whitehead. 1983. *Urban Land Policy: Issues and Opportunities*. New York: Oxford University Press.
- El Sammani, M.O., M. El Hadi Abu Sin, M. Talha, B. El Hassen, and I. Haywood. 1989. "Management Problems of Greater Khartoum." Pp. 247-275 in *African Cities in Crisis: Managing Rapid Urban Growth*, eds. R.E. Stren and R.R. White. Boulder, CO: Westview Press.
- Faria, V.E. 1988. "Sao Paulo." Pp. 294-309 in *The Metropolis Era, Vol. 2, Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Findley, S.E. 1993. "The Third World City: Development and Policy Issues." Pp. 1-31 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Frey, R.S., T. Dietz, and J. Marte. 1986. "The Effect of Economic Dependence on Urban Primacy: A Cross-National Analysis." *Urban Affairs Quarterly* 21: 359-368.
- Fuchs, R.J., G.W. Jones, and E. del Mar Pernia with S.E. Ward (eds.) 1987. *Urbanization and Urban Policies in Pacific Asia*. Boulder, CO: Westview Press.

- Geisse, G. and F. Sabatini. 1988. "Latin American Cities and Their Poor." Pp. 322-336 in *The Metropolis Era*, Vol. 1, *A World of Giant Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Gilbert, A. 1994a. *The Latin American City*. London: Latin America Bureau.
- Gilbert, A. 1994b. "Third World Cities: Poverty, Employment, Gender Roles and the Environment during a Time of Restructuring." *Urban Studies* 31 (May): 605-633.
- Gilbert, A.G. and J. Gugler. 1982. *Cities, Poverty, and Development: Urbanisation in the Third World*. Oxford: Oxford University Press.
- Goldstein, S. 1993. "The Impact of Temporary Migration on Urban Places: Thailand and China as Case Studies." Pp. 199-219 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Griffin, K. and A.K. Ghose. 1979. "Growth and Impoverishment in the Rural Areas of Asia." *World Development* 7: 361-383.
- Gugler, J. 1988. "Overurbanization Reconsidered." Pp. 74-92 in *The Urbanization of the Third World*, ed. J. Gugler. New York: Oxford University Press.
- Gwynne, R.N. 1985. *Industrialization and Urbanization in Latin America*. London: Croom Helm.
- Hadiwinoto, S. and J. Leitmann. 1994. "Environmental Profile of Jakarta, Indonesia." *Cities* 11 (3): 153-157.
- Hardoy, J.E. and D. Satterthwaite. 1981. *Shelter, Need and Response: Housing, Land, and Settlement Policies in Seventeen Third World Nations*. Chichester, UK: John Wiley.
- Hardoy, J.E. and D. Satterthwaite. 1984. "Third World Cities and the Environment of Poverty." *Geoforum* 15 (3): 307-333.
- Hardoy, J.E. and D. Satterthwaite. 1986. "Urban Change in the Third World: Are Recent Trends a Useful Pointer to the Future?" *Habitat International* 10 (3): 33-52.
- Hardoy, J.E. and D. Satterthwaite. 1989a. "Environmental Problems at the City and Regional Level." Pp. 179-218 in *Squatter Citizens: Life in the Urban Third World*, eds. J.E. Hardoy and D. Satterthwaite. London: Earthscan.
- Hardoy, J.E. and D. Satterthwaite. 1989b. "Environmental Problems in Third World Cities --- In the Home, Workplace, and Neighbourhood." Pp. 146-169 in *Squatter Citizens: Life in the Urban Third World*, eds. J.E. Hardoy and D. Satterthwaite. London: Earthscan.
- Hardoy, J.E. and D. Satterthwaite. 1989c. *Urbanization and Sustainable Development in the Third World: An Unrecognized Global Issue*. Nairobi: United Nations Centre for Human Settlements.
- Hardoy, J., D. Mitlin, and D. Satterthwaite. 1992a. *Environmental Problems in Third World Cities*. London: Earthscan Publications.

- Hardoy, J., D. Mitlin, and D. Satterthwaite. 1992b. "The Future City." Pp. 124-156 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Harris, N. 1978. *Economic Development, Cities and Planning: The Case of Bombay*. Bombay: Oxford University Press.
- Hawley, A.H. 1972. "Population Density and the City." *Demography* 9: 521-529.
- Hawley, A.H. 1981. *Urban Society: An Ecological Approach*. Second Edition. New York: Ronald Press.
- Hawley, R. 1995. "Urban Energy Needs and the Environment." *Waste Management & the Environment* 3 (July): 33-36.
- Hodder, R.N.W. 1993. "Exchange and Reform in the Economy of Shanghai Municipality: Socialist Geography Under Reform." *Annals of the Association of American Geographers* 83 (June): 303-319.
- Hugo, G.J. 1981. "Road Transport, Population Mobility and Development in Indonesia." Pp. 355-381 in *Population Mobility and Development: Southeast Asia and the Pacific*, eds. G.W. Jones and H.V. Richter. Development Studies Centre Monograph No. 27. Canberra: Australian National University.
- Jazairy, I., M. Alamgir, and T. Panuccio. 1992. *The State of World Rural Poverty: An Inquiry into Its Causes and Consequences*. New York: New York University Press.
- Jiménez, R. and A. Velázquez. 1989. "Metropolitan Manila: A Framework for its Sustained Development." *Environment and Urbanization* 1 (1): 51-58.
- Kasarda, J.D. and E.M. Crenshaw. 1991. "Third World Urbanization: Dimensions, Theories, and Determinants." *Annual Review of Sociology* 17: 467-501.
- Kasarda, J.D. and A.M. Parnell (eds.) 1993. *Third World Cities: Problems, Policies, and Prospects*. Newbury Park, CA: Sage Publications.
- Kelley, A.C. and J.G. Williamson. 1984. *What Drives Third World City Growth? A Dynamic General Equilibrium Approach*. Princeton, NJ: Princeton University Press.
- Kentor, J. 1981. "Structural Determinants of Peripheral Urbanization: The Effects of International Dependence." *American Sociological Review* 46 (April): 201-211.
- Khalifa, A.M. and M.M. Moheiddin. 1988. "Cairo." Pp. 235-267 in *The Metropolis Era, Vol. 2, Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Kirkby, R.J.R. 1985. *Urbanisation in China: Town and Country in a Developing Economy 1949-2000*. London: Croom Helm.
- Kong, L. and B.S.A. Yeoh. 1994. "Urban Conservation in Singapore: A Survey of State Policies and Popular Attitudes." *Urban Studies* 31 (March): 247-265.

- Kowarick, L. and M. Campanario. 1986. "São Paulo: The Price of World City Status." *Development and Change* 17: 159-174.
- Kungskulniti, N., C. Pulket, F.D. Miller, and K.R. Smith. 1991. "Solid Waste Scavenger Community: An Investigation in Bangkok, Thailand." *Asia-Pacific Journal of Public Health* 5 (1): 54-65.
- Leeds, A. 1969. "The Significant Variables Determining the Character of Squatter Settlements." *America Latina* 12 (3): 44-86.
- Linn, J.F. 1983. *Cities in the Developing World*. New York: Oxford University Press.
- Lowe, M.D. 1990. *Alternatives to the Automobile: Transport for Livable Cities*. Worldwatch Paper No. 98. Washington, DC: Worldwatch Institute.
- Lowe, M.D. 1991. *Shaping Cities: The Environmental and Human Dimensions*. Worldwatch Paper No. 105. Washington, DC: Worldwatch Institute.
- Lowe, M.D. 1992. "Shaping Cities." Pp. 119-137 in *State of the World 1992*. New York: W.W. Norton.
- Lowry, I.S. 1991. "World Urbanization in Perspective." Pp. 148-176 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York: Oxford University Press.
- McAustan, P. 1985. *Urban Land and Shelter for the Poor*. London: Earthscan.
- McNulty, M.L. and I.A. Adalemo. 1988. "Lagos." Pp. 212-234 in *The Metropolis Era, Vol. 2, Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Murphey, R. 1988. "Shanghai." Pp. 157-183 in *The Metropolis Era, Vol. 2, Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Nagpaul, H. 1988a. "Delhi." Pp. 184-211 in *The Metropolis Era, Vol. 2, Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Nagpaul, H. 1988b. "India's Giant Cities." Pp. 252-290 in *The Metropolis Era, Vol. 1, A World of Giant Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Newland, K. 1980. *City Limits: Emerging Constraints on Urban Growth*. Worldwatch Paper No. 38. Washington, DC: Worldwatch Institute.
- Oberai, A.S. 1993. "Urbanization, Development, and Economic Efficiency." Pp. 58-73 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Pendakur, V.S. 1993. "Congestion Management and Air Quality: Lessons from Bangkok and Mexico City." *Asian Journal of Environmental Management* 1 (2): 53-65

- Perlman, J.E. 1992. "A Strategy for Deliberate Social Change in Cities." Pp. 189-195 in *Change: Threat or Opportunity?* Vol. V: *Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Pernia, E.M. 1991. "Aspects of Urbanization and the Environment in Southeast Asia." *Asian Development Review* 9 (2): 113-136.
- Pernia, E.M. 1992. "Southeast Asia." Pp. 233-257 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.
- Pezzoli, K. 1991. "Environmental Conflicts in the Urban Milieu: The Case of Mexico City." Pp. 205-229 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. M. Goodman and M. Redclift. Manchester: Manchester University Press.
- Pezzoli, K. 1993. "Sustainable Livelihoods in the Urban Milieu: A Case Study from Mexico City." Pp. 127-154 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Potter, R.B. 1993. "Urbanisation in the Caribbean and Trends of Global Convergence-Divergence." *Geographical Journal* 159 (1): 1-21.
- Qutub, S.A. 1992. "Rapid Population Growth and Urban Problems in Pakistan." *Ambio* 21 (1): 46-49.
- Richardson, H.W. 1993. "Efficiency and Welfare in LDC Mega-Cities." Pp. 32-57 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Ro, C.H. 1994. "Rapid Urban Population Growth, Employment, Housing and the Quality of Life: The Experience of the Republic of Korea." Pp. 80-84 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Roberts, B.R. 1989. "Urbanization, Migration and Development." *Sociological Forum* 4 (4): 665-691.
- Roberts, B.R. 1994. "Urbanization and the Environment in Developing Countries: Latin America in Comparative Perspective." Pp. 303-336 in *Population & Environment: Rethinking the Debate*, eds. L. Arizpe, M.P. Stone, and D.C. Major. Boulder, CO: Westview Press.
- Rondinelli, D.A. 1988. "Giant and Secondary City Growth in Africa." Pp. 291-321 in *The Metropolis Era*, Vol. 1, *A World of Giant Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Rondinelli, D.A. and J.D. Kasarda. 1993a. "Job Creation Needs in Third World Cities." Pp. 92-119 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage

Publications.

- Rondinelli, D.A. and J.D. Kasarda. 1993b. "Privatization of Urban Services and Infrastructure in Developing Countries: An Assessment of Experience." Pp. 134-160 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Sachs, I. 1988. "Vulnerability of Giant Cities and the Life Lottery." Pp. 337-350 in *The Metropolis Era*, Vol. 1, *A World of Giant Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Schteingart, M. 1988. "Mexico City." Pp. 268-293 in *The Metropolis Era*, Vol. 2, *Mega-Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Schteingart, M. 1989. "The Environmental Problems Associated with Urban Development in Mexico City." *Environment and Urbanization* 1 (1): 40-50.
- Selvaratnam, S. 1994. "Rapid Urban Population Growth, Employment, Housing and Quality of Life." Pp. 69-79 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme, Asian Population Studies Series No. 126. New York: United Nations.
- Singh, A. 1992. "Urbanisation, Poverty and Employment: The Large Metropolis in the Third World." *Contributions to Political Economy* 11: 15-40.
- Sit, V.F.-S. 1993. "Transnational Capital Flows, Foreign Investments, and Urban Growth in Developing Countries." Pp. 180-198 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Smil, V. 1984. *The Bad Earth: Environmental Degradation in China*. Armonk, NY: M.E. Sharpe.
- Smith, K.R. and Y.-S. F. Lee. 1993. "Urbanization and the Environmental Risk Transition." Pp. 179 in *Third World Cities: Problems, Policies, and Prospects*, eds. J.D. Kasarda and A.M. Parnell. Newbury Park, CA: Sage Publications.
- Stokes, B. 1981. *Global Housing Prospects: The Resource Constraints*. Worldwatch Paper No. 46. Washington, DC: Worldwatch Institute.
- Stren, R.E. 1992. "Conclusion." Pp. 307-315 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.
- Stren, R.E. 1994. "Urban Research in Africa, 1960-92." *Urban Studies* 31 (May): 729-743.
- Stren, R.E. and R.R. White (eds.) 1989. *African Cities in Crisis: Managing Rapid Urban Growth*. Boulder, CO: Westview Press.

- Stren, R.E., R. White, and J. Whitney. 1992. *Sustainable Cities: Urbanization and the Environment in International Perspective*. Boulder, CO: Westview Press.
- "Take a Deep Breath." *The Economist* (17 September 1994): 91-93.
- Tang Wing-Shing and A. Jenkins. 1990. "Urbanisation: Processes, Policies and Patterns." Pp. 203-223 in *The Geography of Contemporary China: The Impact of Deng Xiaoping's Decade*, eds. T. Cannon and A. Jenkins. New York: Routledge.
- Teune, H. 1988. "Growth and Pathologies of Giant Cities." Pp.351-376 in *The Metropolis Era, Vol. 1, A World of Giant Cities*, eds. M. Dogan and J.D. Kasarda. Beverly Hills, CA: Sage Publications.
- Todaro, M.P. with J. Stilkind. 1981. *City Bias and Rural Neglect: The Dilemma of Urban Development*. New York: The Population Council.
- Tsay Ching-ling. 1994. "An Exploration of the Health Aspects of Urbanization in Taiwan." Pp. 411-436 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- United Nations. 1974. *Human Settlements: The Environmental Challenge*. London: Macmillan.
- Wang Zhishi. 1995. "Macau Faces Challenge of Integrated Water Management." *Waste Management & the Environment* 3 (September): 18, 20-23.
- Ward, B. 1976. *The Home of Man*. New York: W.W. Norton.
- Webster, D. 1995. "The Urban Environment in Southeast Asia: Challenges and Opportunities." *Southeast Asian Affairs 1995*: 89-107.
- Wekwete, K.H. 1992. "Africa." Pp. 105-140 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.
- White, R. and J. Whitney. 1992. "Cities and the Environment: An Overview." Pp. 8-51 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.
- World Bank. 1991. *Urban Policy and Economic Development: An Agenda for the 1990s*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Health Organization. 1992. *Urban Air Pollution in Megacities of the World*. London: Blackwell Reference Publishing.
- World Resources Institute, United Nations Environment Programme, and United Nations Development Programme. 1990. *World Resources 1990-91*. New York: Oxford University Press.
- Yeung Yue-man. 1992. "China and Hong Kong." Pp. 259-280 in *Sustainable Cities: Urbanization and the Environment*, eds. R. Stren, R. White, and J. Whitney. Boulder, CO: Westview Press.

IV. Planning for Sustainable Development

In spite of the considerable attention given to the idea of sustainable development, the means for its achievement remain a subject of highly charged debate and enormous controversy. Needless to say, any effective strategy for ensuring sustainability must come to grips with problems of resource depletion and environmental degradation. But this accomplishment will require actions that eliminate not simply the symptoms of environmental destruction, but also their direct and indirect causes, which are intertwined with the process of development itself. In short, the achievement of sustainable development will involve a fundamental reorganization of human society.

At present there is no generally accepted blueprint for achieving the sustainable society, though blame for this situation is surely not due to lack of effort. An impressive number of scholars, policymakers, and planners has produced an enormous literature, largely over the past two decades, outlining an incredible variety of strategies and tactics believed to contribute to the quest for sustainability. This final chapter provides citations to a sizeable sample of these writings.

Section A includes materials that identify the major obstacles to sustainability and the general strategies that have been proposed to overcome them. Detailed coverage of the literature on sustainable development was presented in Chapter I, Section C. Nonetheless, it is useful to include here a number of items that point specifically to the variety of obstacles assumed to stand in the way of sustainability (Dorfman 1985; Brown 1986; Redclift 1987; Brown et al. 1988; Barrett 1991; Helm 1991; Helm and Pearce 1991; Maler 1991; Mathews 1991b; Smith and Warr 1991; Stern et al. 1992; Tolba et al. 1992; Middleton et al. 1993; Stone 1993; Park 1994; Smith 1995).

Several general categories of deterrents can be identified. One set reflects conceptual and ideological differences that separate ecological from economic

approaches to development policy (Daly 1977, 1989b; Carpenter and Dixon 1985; Nijkamp and Soesteman 1988; Redclift 1988; Commoner 1989; Lombardini 1989; Kassiola 1990; Henderson 1991; Daly and Cobb 1994; Common 1995). These differences are reflected not only in the approaches of development specialists, but also in the dominant values and beliefs of contemporary culture. Other writers have identified barriers to sustainability that reside in the international economic system, including international debt (Adams 1991), mechanisms for financing development (Holmberg 1992), and the arrangements through which more developed nations provide assistance to the less developed world (Linear 1985; Ivory 1992). Still others emphasize the characteristics of the national political systems of developing countries, e.g., the presence of military regimes (Alario 1993; Gasser 1995), weakness of political leadership (Cuccia 1989), and resistance to the adoption of effective population (Keyfitz 1992; Gulhati and Bates 1994) or environmental (Harrison et al. 1982) policies.

In recent years many studies have appeared that locate the principal barriers to sustainability in what is generally referred to as the *international system*. While definitions of this term vary, it reflects the network of structural and functional connections among nations, including international organizations. According to this perspective, major obstacles to sustainability result from the inability or unwillingness of nations to work collectively in the human interest. One set of studies addresses questions about the degree and consequences of conflict over control of natural resources (Choucri and North 1975; Connelly and Perlman 1975; Midlarsky 1982; Catton 1983; Naff and Matson 1984; Westing 1984, 1986; Schnaiberg et al. 1986; Nossiter 1987; Mandel 1988; Homer-Dixon 1991, 1993, 1994; Choucri and North 1993; Gedicks 1993; Gleick 1993; Lowi 1993; Sprinz and Vaahoranta 1994). Others have located the problem in weak or conflicting international regulatory regimes and policies, with special attention to those pertaining to the environment (Caldwell 1990a; Chayes and Chayes 1991; Birnie 1992; Haas with Sundgren 1993; Brown et al. 1994; Conca et al. 1995; Miller 1995). A third approach points to difficulties in ratifying and/or verifying international environmental agreements (Ausbul and Victor 1992; Spector and Korala 1993). In recent years a number of critics have shifted attention to problems with the operation of multilateral institutions, such as the United Nations and the World Bank, and international conferences such as the UNCED (Rich 1990, 1994; Documents 1992; Mikesell and Williams 1992; Grubb et al. 1993; Chatterjee and Finger 1994; Taylor 1993; Daly 1994; French 1994). Finally, another body of literature raises questions about the notion of *national security*, asking whether the interests of sustainable development might be better served by thinking in terms of *global security*, which would place heavy emphasis on the urgent need for much improved environmental management (Brown 1977, 1985a; Deudney 1983, 1990; Myers 1986, 1989a, 1993c; Gore 1989; Mathews 1989; Renner 1989; Eberstadt 1991; Weiner 1992; Bruntland 1993; Dewitt 1993; Ehrlich

et al. 1993; Romm 1993; Weiss and Holdgate 1993; Porter 1995).

As mentioned above, there is no dearth of strategies proclaimed to advance the interests of sustainability (cf. Ophuls 1977; Platt 1977; Brown 1981, 1992; Brown and Shaw 1982; Myers 1984b, 1991; Myers et al. 1984; Brown and Wolf 1985, 1987; Dasman 1985; Clark and Munn 1987; Draggan et al. 1987; Baumol 1988; Norgaard 1988, 1994; O’Riordan 1988; Turner 1988; Archibugi and Nijkamp 1989; Archibugi et al. 1989; Clark 1989; Holdgate 1989; Lester 1989; MacNeill 1989a, 1989b; Milbrath 1989; Munn 1989; Ruckelshaus 1989a, 1989b; Stockdale 1989; Western and Pearl 1989; Adamson 1990; Akerman 1990; Bell 1990; Bookchin 1990; Brown et al. 1990, 1992; Caldwell 1990b; Coombs 1990; Prins 1990; Rees 1990; Wisner 1990; Young 1990; Colby 1991; Costanza 1991a, 1991b; Dorfman 1991; Ehrlich and Ehrlich 1991; Daly 1991; Dixon and Fallon 1991; International Union for the Conservation of Nature et al. 1991; MacNeill et al. 1991; Mathews 1991b; Norton 1991; World Bank, 1991, 1992, 1994, 1995; Mohrmann 1992; Redclift 1992; United Nations 1992; White 1992; Williams 1992; Carley and Christie 1993; Kottak and Costa 1993; Munasinghe et al. 1993; Nitze 1993; Pearce and Warford 1993; Solow 1993; Tokar 1993; Costanza et al. 1994; Daly and Cobb 1994; Stiles 1994; Stone 1994; Leff 1995; Porter and Brown 1995). A much smaller number of writers has proposed methodological innovations intended to aid the empirical assessment of progress toward the sustainable society (Archibugi 1989; Costanza and Daly 1992; Simm 1992; Wilson 1992; Rothenberg 1993a, 1993b; Bartelmus 1994; Munda et al. 1994).

Sustainable development strategies can be grouped into two broad categories. One set consists of interventions that can be adopted by national governments or smaller localities. First, there are efforts to change the ways people think about the environment and its role in development. Examples include ecological education (Clark 1991; Zuchetto 1991; Meadows 1992; Grove-White et al. 1992; Finger 1994; Hågvar 1994; Mattoo and Singh 1994), “green marketing” (Plant and Plant 1990; Hawken 1993), and the “precautionary principle,” which emphasizes the risks of not making all reasonable efforts to preserve ecosystem integrity (Gray and Rivkin 1991; Perrings 1991; Myers 1993a; Warren 1993). A related strategy would employ the power of the mass media to increase environmental awareness (Lemay and Dennis 1991; Ryan 1991; Shrestha 1991).

A second group of strategists, taking seriously the interdependence assumption underlying the ecosystem perspective, has promoted the idea of integrated development planning with particular attention to ecosystem protection (Tiezzi et al. 1991; Lutz and Young 1992; Bardhan 1993; Brechin et al. 1994; Kismadi 1994; Panandiker 1994). A third approach is intended to overcome the ecological damage presumed to result from the current volume and intensity of economic production of industrial societies. It calls for a fundamental reorganization of the economic system in order to preserve the stock of natural

capital and remain within the limits of environmental carrying capacity (Daly 1973, 1974, 1977a, 1977b, 1989a; Stillman 1977; Brown 1984b; Chandler 1987; Pearce 1988; Orenstein and Ehrlich 1989; Tietenberg 1991a, 1991b; Daly and Cobb 1994). Some writers believe this balance can be achieved through selective economic incentives (Repetto 1989; Farber 1991) and investment strategies (van Droste and Dogné 1992).

A fourth blueprint for sustainability rests on faith in the efficacy of science and technology. Concepts such as *industrial ecology* have been created to reflect the idea that industrial production and even economic growth can be environmentally benign if the appropriate technological innovations are implemented (Norman 1978; Holt and Rawlins 1990; Heaton et al. 1991, 1994; Mitch 1991; Drooge et al. 1992; Gurgulino de Souza 1992; Juma and Sagoff 1992; Lang et al. 1992; Simonis 1992; Skolnikoff 1993; Tiffin and Mortimore 1994). Science and technology are also seen as mechanisms for making agriculture ecologically sound (Brown 1987; York 1988; Young 1989; Wimberley 1993; Saltiel et al. 1994).

Fifth, many analysts continue to believe that population management is a necessary condition for a sustainable society. This includes not only the control of fertility and population growth, but also the rational allocation of population distribution and migration (Bobrow 1977; Newland 1977; Stokes 1977, 1980; Brown 1983, 1984c, 1985b; Jacobson 1983, 1987, 1990; Brown and Jacobson 1986; Pearce 1991a; Birdsall 1994; Blaikie 1994; Henson 1994; Johnson 1994).

Finally, several related strategies are based on the idea that sustainable development and environmental management cannot be left in the hands of governments and other elites. According to this viewpoint, popular participation is a prerequisite for innovations that will truly serve the public interest. There is a variety of ways in which sustainability can be pursued through collective action. One is to involve nongovernmental organizations (NGOs) and public advocacy groups in the design, implementation, and evaluation of development projects (Milbrath 1984; Norton 1991b; Bramble and Porter 1992; Lindborg 1992; Sand 1992; Fisher 1993; Dalton 1994). Another strategy is based on the assumption that local people understand their problems and, if given the opportunity and necessary resources, can devise sustainable solutions (Stokes 1978; Sharp 1992; Friedman and Rangan 1993; Massaro 1993; McDonald 1993; Melone 1993; Rangan 1993; Burningham and O'Brien 1994; Cvetkovitch and Earle 1994; Eale et al. 1994; Hyndman 1994). Moreover, some analysts believe that indigenous knowledge is a valuable and often overlooked commodity (DeWalt 1994). Finally, increasing attention is being given to the unique contributions available from women's organizations (Dankelman and Davidson 1988; Southeimer 1991; Dogramaci 1992; Jackson 1994).

The second major category of sustainable development strategies is focused on relations within the international system. These approaches are

premised on the belief that solutions to development problems generally, and ecological problems in particular, require the collective effort of all nations. Moreover, they assume that the principal obstacles to be removed are inherent in the existing pattern of international relations. Perhaps the most general strategy is intended to increase the extent of international cooperation in dealing with problems of development and the environment (Boardman 1981; Young 1982, 1989; Carroll 1988; Documents 1989; Sand 1990, 1991; Streeten 1991; Attiga 1992; French 1992, 1995; Hurrell and Kingsbury 1992a, 1992b; Kimball 1992; Mulenex 1992; Piddington 1992; Sandford 1992; Thacher 1992; Haas et al. 1993; Tickell 1993; Williams and Petesch 1993; United Nations 1993; Barrett 1994; Porras 1994; Thomas 1994; Bernauer 1995. Strategists who adopt this perspective often stress the need to reorganize and re-energize the relevant agencies within the United Nations system (Imber 1991, 1993a, 1993b, 1994; Mbuna 1992).

Another approach seeks to alter the basis of international trade in order to alleviate its environmentally damaging consequences (Arden-Clarke 1993; Victor et al. 1993; Ward 1993; Westcoat 1993; Cameron 1994; Daly and Goodland 1994a, 1994b, 1994c; Bredahl et al. 1996). A third avenue would rationalize the policies and practices of the more developed nations pertaining to development and the environment. This would include aid provided to developing countries and contributions to preservation of the global environment (Mathews 1991c; Schor 1991; Cooper 1992; Gore 1992; Hagerty 1992; Maull 1992; Naugh 1992; Repetto 1992; Chad and Stone 1993; Potter 1994; Rubi et al. 1994). An often neglected component of this approach is transfer of environmentally benign technologies (Fri and Cooper 1992).

A final strategy focused on the international system emphasizes the need for more effective forms of international environmental law (Palmer 1992; Susskind and Ozewa 1992; Susskind et al. 1992; Weiss 1993; Pallemaerts 1994; Sands 1994a, 1994b, 1994c; Scherr and Blumenfeld 1994; Susskind 1994; Tarasofsky 1994; Werksman 1994; Whelling 1994). There is a particular need for regulatory mechanisms that are both just and enforceable.

Several studies have addressed the issue of obstacles to and strategies for sustainable development in specific regional and national contexts. Discussions focused on Africa include Brown and Chandler 1986 and Njiti and Sharpe 1994. For Asia, one can consult Smil 1984, 1993; Lo 1989; Ross 1992; Brandon and Ramankutty 1993; Jasanoff 1993; Lindsay 1993; Montgomery 1993a, 1993b; and Weiskel 1993. Informative analyses of the situation in Latin America and the Caribbean include Cavalcanti 1991; Cleary 1991; Economic Commission for Latin America 1991; List and Rittberger 1992; Muñoz 1992; Documents 1993; and MacDonald et al. 1996.

The materials cited in Sections B and C cover more specific efforts to address the environmental dimensions of sustainable development strategies. Those contained in Section B pertain to the management of natural resources. A

variety of publications over the past couple of decades provide overviews of the many issues that have been raised and the strategies that have been proposed or implemented (Pindyck 1978; Brown 1979; Dolman 1980; Dorner and El-Shafie 1980; Dunkerley and Whitehead 1983; Hossain and Chowdhury 1984; Lowe et al. 1986; Soulé 1986; Hanson and Erbaugh 1987; Roth 1987; Roy 1987; Southgate and Disinger 1987; Southgate and Hitzhuzen 1987; U.S. Agency for International Development 1987; Chau 1988; Dreadman and Turner 1988; Pearce 1988; Pearce and Marykanda 1989; Ascher and Healey 1990; Kamienicki and Sanasarian 1990; Barbier 1991a; Brussard 1991; Reiner 1991; Arrhenius 1992; Barbier et al. 1992; Reardon 1992; Pearce and Whitehead 1993; Peluso 1993a; Pan 1994; Denniston 1995). The following discussion of the more focused literature will deal, first, with nonrenewable resources and then turn to those usually assumed to be renewable.

During the past decade or so there has been relatively little attention given to strategies to deal with non-fuel mineral problems (but see Eggert 1994). Discussions of recycling (Chandler 1983; Liegerat 1990; Young 1991; Young and Sachs 1994, 1995) and development of synthetic materials (Flavin 1980a) predominate. In contrast, a sizeable number of studies has been concentrated on global and, frequently, Third World energy resource strategies (Flavin 1987a, 1988b, 1992; Goldemberg et al. 1987; Jhirad 1990; Meier 1990; Schramm 1990; Wilbanks 1990; Flavin and Lenssen 1991, 1994a, 1994b; Gibbons et al. 1991; Hirst and Goldman 1991; Pimentel et al. 1991; Darmstadter 1992; Darmstadter and Fri 1992; Goldmark and LaRoccio 1992; Kats 1992; Office of Technology Assessment 1992; World Bank 1993b; Hills 1995).

Technological solutions to energy problems have received a great deal of attention. One set of discussions argues for development of new technologies to take advantage of renewable energy supplies (Hayes 1978; Deudney 1981; Flavin 1981, 1986, 1995; Koo 1987; Flavin and Postel 1984; Flavin and Pollock 1985; Shea 1988a, 1988b; Flavin and Lenssen 1990; Hurst 1990; Ahmad 1994; Kozloft and Shobowale 1994; Williams 1994). Another approach is to improve technologies for processing nonrenewable resources such as coal (Alpert 1991; Rose et al. 1991) and nuclear materials (Flavin 1987b; Hohenemser et al. 1990; Berkhout 1994) and, more generally, to increase the efficiency of energy extraction technologies (Chandler 1985a, 1985b; Flavin 1988a; Flavin and Durning 1988; World Bank 1993a; Gadgil 1994; Geller and Nadel 1994). Finally, a variety of innovations in energy policy have been recommended such as removal of subsidies (Kosmo 1987; Desai 1992), increased taxation (Sindair 1994), privatization (Sullivan 1990), and efforts intended to promote conservation (England 1994; Lenssen and Rodman 1995).

It is now generally agreed that, paradoxically, development activities and policies pose a greater threat to the viability of renewable natural resources. These concerns can be seen in the literature devoted to strategies for sustainable use of land, water, and forests, and for preserving biodiversity. Several studies provide

an overview of land management strategies (Sandford 1983; Rosenberg and Freeman 1984; Wolf 1986b; Blaikie and Brookfield 1987a; Doebele 1987; Dixon et al. 1989, 1990; Gow 1989; Postel 1989; Grainger 1990). Not surprisingly, policies and programs pertaining to agriculture and food production have been discussed extensively (Wolf 1986a, 1987b; Bennett and George 1987; Ghatak 1988; Brady 1989; Crossen and Rosenberg 1989; Ruttan 1989; Brown 1990; DeBoer 1990; Pretty et al. 1992; Avery 1995; Plucknett and Winkelmann 1995). Agrarian reform (Bromley 1989; Baños and Ramirez 1994) and the "livestock economy" (Durning and Brough 1992) and additional examples of important land-use topics. Another set of concerns is seen in discussions of land maintenance policies, including ways to combat soil erosion (Beinhart 1984), and promote land reclamation (Bradshaw and Chadwick 1980; Daily 1995), approaches to watershed management (Brooks et al. 1992), and more general land conservation issues (Brown 1984; Bernstein 1994). Some writers have advocated greater use of indigenous knowledge (Durning 1992; DeWalt 1994) as a means of improving land use practices.

In many parts of the developing world water resource problems pose a major threat to continued development and economic growth. A variety of discussions of water resource strategy and policy issues are available (Postel 1984b, 1985a, 1985b, 1986, 1990, 1992; Anderson 1985; Ayibotele and Falkenmark 1992; Howe and Dixon 1993; McCaffrey 1993; World Bank 1993c; Richley et al. 1995). More specifically, attention has been given to strategies for watershed (Dixon 1989; Arya et al. 1994) and groundwater (Munasinghe 1991; Provencher and Burt 1993) management and, in the agricultural sector, irrigation water pricing (Sampath 1992). Forestry-based water protection strategies have also been proposed (Hamilton and Pearce 1987), as have technologies for water reclamation and recycling (Cummings and Burness 1982; Shuval 1987; Càceres et al. 1992).

Another important set of issues has to do with management of the world's oceans (Sanger 1986; Swanson 1991b; Stairs and Taylor 1992; Weber 1994b; Jeffries 1995; World Bank et al. 1995) and fisheries (Kent 1979; Brown 1985; Hammer et al. 1993; Charles 1994; Weber 1994a, 1995; Bayley 1995). Within the latter topic, the alternative of aquaculture (Chan 1993; Beveridge et al. 1994) has received increased attention. Finally, there is growing recognition of the urgent need for regional coordination with regard to national and international water policies (Dinar and Wolf 1994).

Due to the incontrovertible evidence of widespread deforestation around the world, strategies and policies for protection of forest resources have been major topics of discussion (Eckholm 1979; Clawson and Sedjo 1982; Hallsworth 1982; Proctor 1984; Postel 1984c, 1985c; Anderson 1986; Cernea 1988, 1992; Gillis and Repetto 1988; Postel and Heise 1988; Anderson 1990; Ascher and Healey 1990; Barbier 1991b; Goodland et al. 1991; Postel and Ryan 1991; Miranda et al. 1992;

Myers 1992, 1995; Obdrzalek 1992; Palmer and Synnott 1992; Durning 1993, 1994; Franklin 1995). Several specific issues are evident. First, means of providing fuelwood to households in many parts of the developing world continue to be problematic (Bowander et al. 1988; Armitage and Schramm 1989; Mercer and Soussan 1992). One approach to dealing with these and other wood scarcities lies in the development of commercial reserves or plantations (Winterbottom and Hazelwood 1987; Alregetti 1990; Kanowski et al. 1990; Nair 1992). Second, sustainable forestry strategies are often seen as dependent on community-based direction and participation (Gregerson and McGaughey 1987; Gregerson et al. 1989; Adhikari 1990; Pearce 1991; World Bank 1991; Castañeda 1992; Sharma 1992; Vincent and Binkley 1992; Sharma et al. 1993; Bahruna et al. 1994; Dahr 1994; Ahlbäck 1995). Third, various types of forestry management strategies have been promoted, including those involving incentives (Repetto 1987, 1990; Boado 1988), regulation of timber concessions (Gillis 1992), land-use planning (Hyman 1984), floodplain control (Hamilton 1988; Anderson and Jardin 1989; Brooks et al. 1992; Dhar 1994), debt-for-nature swaps (Moran 1992), and learning from traditional practices of indigenous peoples (Anderson 1988).

Finally, there has been increasing attention to the continued loss of biodiversity (Norgaard 1987; Wolf 1987a; Ledec and Goodland 1988; Reid and Miller 1989; Swanson 1991a, 1992; Courier 1992; Munasinghe 1992; Norton and Ulanowicz 1992; Ryan 1992a, 1992b; Rojas and Thomas 1992; Wells 1992; World Conservation Monitoring Centre 1992; Bishop 1993; Ehrlich and Daily 1993; Folke et al. 1993; Tobey 1993; Stahler 1994; Eisner et al. 1995; Knight 1995; Redford and Robinson 1995). Significant strategic problems include financing biodiversity protection (McNeely 1989, 1993) and development of effective procedures for landscape management (Pelliam 1995). Additional discussions of interest concern the relevance of indigenous knowledge for biodiversity preservation (Gadjil et al. 1993) and the utility of following the precautionary principle (Myers 1993).

Because of the enormous variation of natural resource conditions and trends within and between nations, an increasingly large regional and national literature has accumulated. Studies focused on the African situation include: Naff and Matson 1984; French 1986; Anderson and Grove 1987; Hyman 1987; Little and Brokensha 1987; Clay et al. 1988; Gillis 1988c; Abel and Blaikie 1989; Gould and Zobrist 1989; Newcomb 1989; Burnett and Stillwell 1990; Child and Heath 1990; Lowrey 1990; Gammelsrød 1992; Mgeni 1992; Ramberg 1992; Thomas-Slayter 1992; Toulmin et al. 1992; Bradley and McNamara 1993; Freudenberger 1993; Githinji and Perrings 1993; Hackel 1993; McNeely 1993; Richards 1993; Choker and Odemerho 1994; Karekezi 1994; Larson 1994; Morgan and Solarz 1994; Njiti and Sharpe 1994; Vaishnav 1994; and Ribot 1995. For Asian countries, the following sources are available: Diaz 1982; Ross 1983, 1988; Lopez 1987; Boswonder et al. 1988; Gillis 1988a, 1988b; Li et al. 1988; Shiva and

Bandyopndhysy 1988; Gudha 1989; Hirsch and Lohmann 1989; Peluso and Poffenberger 1989; Poffenberger 1990; Binswanger 1991; Fox 1991; Perlack et al. 1991; Qu 1991; Tjondronegoro 1991; Basnet 1992; Fesharaki and Wu 1992; Gadgil 1992; Peluso 1992, 1993b; Saxena 1992; Bruenig 1993; Frederickson et al. 1993; Freeborne 1993; Herskovitz 1993; Hjorth and Nguyen 1993; Remigo 1993; Someshwar 1993; Swingland 1993; Chandler 1994; Chen Chunhuai 1994; Chen Xiande 1994; Hassan and Mulamootil 1994; Hill 1994; Korten 1994; Liu and Shen 1994; Liu and Tan 1994; McManus 1994; Qing 1994; Rajagukguk 1994; Ravindranath and Hall 1994; Sirait et al. 1994; Suryanata 1994; Xu 1994; Zuo et al. 1994; Coggins 1995; Maul 1995; Parham 1995; Veeck et al. 1995; and Wadley 1995. Among the relevant sources for Latin America and the Caribbean are: Alcorn 1981; Budowski 1982; Nations and Komer 1983; Fearnside 1986; Barbier and Green 1987; Browman 1987; Kempf and Hernandez 1987; Wilken 1987, 1989; Browder 1988, 1989; Anderson and Jardim 1989; Doolittle 1989; Erickson and Chandler 1989; Hall 1989; Hartshorne 1989, 1990; Hecht 1989; Hiraoka 1989; Padoch and de Wong 1989; Reiche 1989; Schwartzman 1989; Treacy 1989; Alregetti 1990; Anderson 1990; Lee 1990; Thrupp 1990; Binswanger 1991; Woodgate 1991; Cáceras et al. 1992; Castañeda 1992; Cox 1992; Hurrell 1992; Jones 1992; Southgate 1992; Svanqvist 1992; Umaña and Brandon 1992; White and Runge 1992; Carrasco 1993; Dixon et al. 1993; Humpheries 1993; Southgate and Clark 1993; Davis and Wall 1994; Dore and Nogueira 1994; Godoy 1994; Lutz et al. 1994; and Sizer and Rice 1995.

In Section C the topic shifts to strategies for achieving and maintaining acceptable levels of environmental quality. Stated otherwise, these materials are concerned with interventions intended to preserve the life support system and to minimize the disposal of harmful wastes.

A large number of general discussions are available (e.g., Lee and Lim 1983; Elsom and Haigh 1986; Pollock 1986; Flavin 1987; Myers 1987; Postel 1987a, 1987b, 1988; Weir 1987; Brown and Wolf 1988; Nash and Bowers 1988; Rees 1988; Renner 1988, 1989, 1994; Bezdek et al. 1989; Brown et al. 1989; Edmonds 1989; Lowe 1989, 1990, 1994a, 1994b; Lyon 1989; Jacobson 1990; Barbier 1991; Durning and Brough 1991; Eskeland and Jimenez 1991; Lennsen 1991, 1992; Young 1991; Ausubel and Victor 1992; French 1992; Girma 1992; Kummer 1992; Seymour and Geyer 1992; Weale 1992; Bernstein 1993; Niemczynowicz 1993; Pearce and Warford 1993; United Nations 1993; Andrews 1994; Braungart 1994; Cavandish and Anderson 1994; Cornwell and Costanza 1994; Cumberland 1994; Döös 1994; France and Thomas 1994; Graedel et al. 1994; Hågvar 1994; Nelson 1994; Organization for Economic Cooperation and Development 1994; Parmentier 1994; Paton 1994; Denniston 1995).

Among the several issues of environmental quality given particular attention in this Sourcebook, that pertaining to atmospheric and climate change has been the subject of an extraordinary debate over strategic approaches (Warwick

and Riebsame 1981; Postel 1986; Documents 1988; Glantz 1988; Shea 1989; Flavin 1990; French 1990a, 1990b, 1990c; Murray 1990; Walsh 1990; Benedick 1991a; National Academy of Sciences 1991a, 1991b, 1991c; Spencer 1991; Beckerman 1992; Intergovernmental Panel on Climate Change 1990, 1992; Munasinghe and King 1992; Rotmans et al. 1992; Rubins et al. 1992; Stone 1992; Swisher and Masters 1992; Strong and Arrhenius 1993; Boehmer-Christianson 1994a, 1994b; Harriss 1994; Kononov 1994; Martinez-Alier 1994; Nordhaus 1994; Rosenberg and Scott 1994; Tuomioja 1994). One set of solutions emphasizes economic mechanisms (d'Arge and Spash 1991; Markandya 1991a; Nordhaus 1991b; Zyllics 1991; Stavins and Whitehead 1993), including taxation of polluting industries (Barrett 1991; Poterba 1991; Stavins and Whitehead 1992; Yohe 1992; Ulph and Ulph 1994) and the use of tradeable emission permits (Markandya 1991b; Bertram 1992; Larson and Shah 1994). Of particular concern is the cost effectiveness of these and other interventions (Donaldson and Bettridge 1990; Lovins and Lovins 1991; Nordhaus 1991a; Mann and Richels 1992; Anderson 1994). In contrast, other writers have emphasized the role of international policy and diplomacy in achieving atmospheric and climate stability (Grubb 1990; Wirth and Lanshof 1990; Benedick 1991b; Haas 1992a, 1992b; Patterson and Grubb 1992; Richardson 1992; Bodansky 1994; Larson and Tobney 1994).

Strategies for halting land degradation and desertification (Nyerges 1982; Todros 1982; Falloux and Mukendi 1988; Postel 1989; Falkenmark and Rockström 1993; Lundin and Lindén 1993) and for improving human settlements (Richardson 1977; Hardoy and Satterthwaite 1981; Renaud 1981; Linn 1983; Rondinelli 1983; Shea 1987; Nientied and van der Linden 1988; Girardet 1993; Hardoy and Satterthwaite 1993; Bartone et al. 1994) are less clearly defined. One underlying factor may be that these latter issues are national and regional rather than global, and thus general approaches are much more difficult to develop.

Discussions focused on national and regional approaches to the improvement of environmental quality are illustrated by the following publications. For Africa, see Mortimore 1989; Jolly 1990; and Larson 1994. For Asia the available sources are more varied, including Jodha 1982; Meier and Quium 1991; Qu 1991; Appasamy and Lundqvist 1993; Barrow 1993; Ross 1983; 1984; 1988; 1992; Silk 1985; Zhang 1987; Wirtschafter and Shih 1990; Xia 1990; Smil 1993; Edmonds 1994a, 1994b; Fullen and Mitchell 1994; Kingsley et al. 1994; Epstein 1995; Chan et al. 1995; Kim 1995; Lu 1995; and Qiang 1995. And for Latin America and the Caribbean one can consult Ledec 1992; MacDonald 1992; Serrão and Toledo 1992; Trujillo-Arriaga 1992; Venator et al. 1992; and Young et al. 1994.

The materials cited in the first three sections of this chapter reflect instrumental approaches to the prevention or management of environmental problems associated with societal development. In contrast, Section D covers

references to the rapidly expanding fields of environmental ethics and *green development*. The general literature on these topics is now sizeable (Passmore 1974; Sagoff 1974, 1987, 1988; Roszak 1978, 1992; Dubos 1980; Regan 1991; Attfield 1983; McCloskey 1983; Calicott 1985, 1989; Evernden 1985; Hargrove 1986, 1989; Spretnak 1986; Taylor 1986; Thompson 1986; Stone 1987, 1993; Brennan 1988, 1995; Rolston 1988; Shirk 1988; Clark 1989; Keokok 1989; Oates 1989; Salleh 1990; R.F. Nash 1992; Kealey 1990; Simon 1990; Allison 1991; Bailey and Fumento 1992; Eversley 1992; Goodin 1992; Lewis 1992; O'Neill 1993; Worster 1993; Ferre and Hartel 1994; Merchant 1994; Zimmerman 1994; Elliot 1995a, 1995c; Ferry 1995; Fox 1995).

Several distinct theoretical perspectives have emerged, including *deep ecology* (Devall 1980; Fox 1980; Devall and Sessions 1985; Naess 1986, 1992; Cheney 1987; Naess with Rothenberg 1989; John 1990), the so-called *biophilia hypothesis* (Wilson 1984, 1993; Gadgil 1993; Heerwagen and Orians 1993; Kellert 1993; Kellert and Wilson 1993; Lawrence 1993; Nabhan and St. Antoine 1993; Nelson 1993; Orr 1993; Rolston 1993; Sagan and Margulis 1993; Soulé 1993; Ulrich 1993), and *ecofeminism* (Fox 1980; Salleh 1984, 1992, 1993; Cheney 1987; Warren 1987, 1990; Zimmerman 1987; Pietila 1990; Henderson 1991; Plumwood 1995). In addition, links between environmental ethics and planning have been explored (Dengston 1980; Beatley 1989).

The term *environmentalism* encompasses several meanings, e.g., a state of mind and a social movement (Paehlke 1988; Guha 1989; Norton 1991; Sober 1995). Issues commonly addressed under this rubric include environmental values (Milbrath 1984; Orenstein and Ehrlich 1989; Booth 1990; Jackson 1991; Ridley and Low 1993; Axelrod 1994; Seligman et al. 1994; Stern and Dietz 1994; Sagoff 1995) as well as the value and/or rights of Nature (Frankel 1976; Worster 1980; Hill 1983; Norton 1984; Dasmann 1988; J.A. Nash 1989; Dryzek 1990; Mathews 1991, 1995; Oelschlaeger 1991; Passmore 1991, 1995; Hågvar 1994).

A number of writers have contrasted, and sometimes tried to reconcile, the fundamental objectives and suppositions of environmental ethics and economics (Kneese 1985; Edwards 1987; Tisdell 1989; Norgaard and Howarth 1991; Turner 1991; Booth 1992, 1994; Daly and Townsend 1993; Spash 1993; Daly and Cobb 1994; Goodin 1994; Rasinski et al. 1994). A related line of thinking develops the philosophy of *ecodevelopment* (Crocker 1990; Engel 1990; Engel and Engel 1990; Goulet 1990; Kothari 1990; Shearman 1990; Norton 1992; Goodland 1993; Glasser et al. 1994; Toman 1994).

Others have examined the idea of *environmental justice* (Hubbard 1977; Heinegg 1979; Wenz 1988; Shue 1992; Bullard 1994; Clayton 1994; Opotow 1994; Opotow and Clayton 1994; Boerner and Lambert 1995). One important issue has to do with the nature and degree of responsibility current generations have for protecting the environment for future generations (Norton 1982; Page 1983; Solow 1986; Lippit and Ramada 1987; Weiss 1989; Howarth and Norgaard

1991; Howarth 1992). Another is seen in the debate over the rights of nonhuman species (Feinberg 1974; Katcher and Wilkins 1993; Shepard 1993; Calicott 1995; Rolston 1995).

Much of the dialogue over environmental ethics has been shaped by Western, developed nation, frames of reference. Nonetheless, several authors have approached the topic from the perspective of nonwestern, developing country styles of thought (Calicott and Ames 1989; Dwivedi 1990; Gudynas 1990; Sivaraksa 1990; Sui-Cheong and Kam-Kong 1990; Izzi Deen 1990; Omari 1990; Omono-Fadaka 1990; Maybury-Lewis 1992; Diamond 1993; Hallman 1994).

A. Obstacles and General Strategies

- Adams, P. 1991. *Odious Debts: Loose Lending, Corruption and the Third World's Environmental Legacy*. London: Earthscan.
- Adamson, D. 1990. *Defending the Earth*. London: I.B. Taurus.
- Akerman, N. (ed.) 1990. *Maintaining a Satisfactory Environment: An Agenda for International Environmental Policy*. Boulder, CO: Westview Press.
- Alario, M. 1993. "Environmental Policy Enactment Under the Military: Some Generalities Between Brazil and Chile." *International Journal of Comparative Sociology* 34 (3/4): 222-230.
- Allenby, B.R. and D.J. Richards (eds.). 1994. *The Greening of Industrial Ecosystems*. Washington, DC: National Academy Press.
- Angell, D.J.R., J. Comer, and M.L.N. Wildinson (eds.) 1990. *Sustaining Earth*. London: Macmillan.
- Archibugi, F. 1989. "Comprehensive Social Assessment: An Essential Instrument for Environmental Policy-Making." Pp. 169-187 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Archibugi, F. and P. Nijkamp (eds.) 1989. *Economy and Ecology: Towards Sustainable Development*. Hingham, MA: Kluwer Academic Publishers.
- Archibugi, F., P. Nijkamp, and F.J. Soeteman. 1989. "The Challenge of Sustainable Development." Pp. 1-12 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Arden-Clarke, C. 1993. "An Action Agenda for Trade Policy Reform to Support Sustainable Development: A United Nations Conference on Environment and Development Follow-Up." Pp. 71-81 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Attiga, A.A. 1992. "Sustainable Development Through Global Interdependence." Pp. 88-107 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Ausubel, J.H. and D.G. Victor. 1992. "Verification of International Environmental Agreements." *Annual Review of Energy and Environment* 17: 1-43.
- Ayres, R. and U. Simonis (eds.). 1994. *Industrial Metabolism: Restructuring for Sustainable Development*. Tokyo: United Nations University Press.
- Ayres, R.U. and A.V. Kneese. 1989. "Externalities, Economics, & Thermodynamics." Pp. 89-118 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.

- Barbier, E. 1991. "Environmental Degradation in the Third World." Pp. 75-108 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Bardhan, P. 1993. "Analytics of the Institutions of Informal Cooperation in Rural Development." *World Development* 21 (April): 633-639.
- Barnet, R.J. 1980. *The Lean Years: Politics in the Age of Scarcity*. New York: Simon and Schuster.
- Barrett, S. 1991. "The Problem of Global Environmental Protection." Pp. 137-155 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Barrett, S. 1994. "Self-Enforcing International Environmental Agreements." *Oxford Economic Papers* 46 (October): 878-894.
- Barrow, C.J. 1995. *Developing the Environment: Problems and Management*. Essex: Longman Scientific & Technical.
- Bartelmus, P. 1994. "Green Accounting for a National Strategy of Sustainable Development --- The Case of Papua New Guinea." *Ambio* 23 (8): 509-514.
- Baumol, W.J. 1988. *The Theory of Environmental Policy*. Second Edition. Cambridge: Cambridge University Press.
- Baumol, W.J. and W.E. Oates. 1975. *The Theory of Environmental Policy*. Englewood Cliffs, NJ: Prentice-Hall.
- Baumol, W.J. and W.E. Oates. 1979. *Economics, Environmental Policy, and the Quality of Life*. Englewood Cliffs, NJ: Prentice-Hall.
- Bekoe, D.A. and L. Prage. 1992. "Capacity Building." Pp. 255-263 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Bell, D. 1990. "Making Intelligent Decisions in a Democratic Society." Pp. 297-304 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Bernauer, T. 1995. "The Effect of International Environmental Institutions: How We Might Learn More." *International Organization* 49 (Spring): 351-377.
- Birdsall, N. 1994. "Government, Population, and Poverty: A Win-Win Tale." Pp. 253-274 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Birmie, P. 1992. "International Environmental Law: Its Adequacy for Present and Future Needs." Pp. 51-84 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.

- Black, R. 1994. "Forced Migration and Environmental Change: The Impact of Refugees on Host Environments." *Journal of Environmental Management* 42 (September): 261-277.
- Blaikie, P. 1994. "Population Change and Environmental Management: Coping and Adaptation at the Domestic Level." Pp. 63-86 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Boardman, R. 1981. *International Organization and the Conservation of Nature*. Bloomington: Indiana University Press.
- Bobrow, D.B. 1977. "The Politics of Coordinated Redistribution." Pp. 197-219 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Bookchin, M. 1990. *Remaking Society: Pathways to a Green Future*. Boston: South End Press.
- Bramble, B.J. and G. Porter. 1992. "Non-Governmental Organizations and the Making of US International Environmental Policy." 313-353 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Brandon, C. and R. Ramankutty. 1993. *Toward an Environmental Strategy for Asia*. World Bank Discussion Paper No. 224. Washington, DC: The World Bank.
- Brechin, S.R. and W. Kempton. 1994. "Global Environmentalism: A Challenge to the Postmaterialism Thesis." *Social Science Quarterly* 75 (June): 245-269.
- Brechin, S.R., G.D. Ness, and W.D. Drake. 1994. "Integration of Population, Environment and Development Policies: Population and Environment." Pp. 15-28 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Bredahl, M.E., T.L. Roe, N. Ballenger, and J. Dunmore (eds.). 1996. *Agriculture, Trade, and the Environment: Discovering and Measuring the Critical Linkages*. Boulder, CO: Westview Press.
- Brewer, G.D. 1993. "Environmental Challenges and Managerial Responses: A Decision Perspective." Pp. 281-303 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Brown, B.J., M.E. Hanson, D.M. Liverman, and R.W. Merideth, Jr. 1988. "Global Sustainability: Toward a Definition." *Environmental Management* 11: 713-719.

- Brown, K., W.N. Adger, and R.K. Turner. 1994. "International Policy and Global Environmental Change." Pp. 459-476 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Brown, L.R. 1977. *Redefining National Security*. Worldwatch Paper No. 14. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1981. *Building a Sustainable Society*. New York: W.W. Norton.
- Brown, L.R. 1983. *Population Policies for a New Economic Era*. Worldwatch Paper No. 53. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1984a. "Reconsidering the Automobile's Future." Pp. 157-174 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1984b. "Reshaping Economic Policies." Pp. 194-209 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1984c. "Stabilizing Population." Pp. 20-34 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1985a. "A False Sense of Security." Pp. 3-22 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1985b. "Stopping Population Growth." Pp. 200-221 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1986. "A Generation of Deficits." Pp.3-21 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1987. "Sustaining World Agriculture." Pp. 122-138 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1992. "Launching the Environmental Revolution." Pp. 174-190 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and J.L. Jacobson. 1986. *Our Demographically Divided World*. Worldwatch Paper No. 74. Washington, DC: Worldwatch Institute.
- Brown, L.R. and W.U. Chandler. 1986. "Reversing Africa's Decline." Pp. 177-194 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and P. Shaw. 1982. *Six Steps to a Sustainable Society*. Worldwatch Paper No. 48. Washington, DC: Worldwatch Institute.
- Brown, L.R. and E.C. Wolf. 1985. "Getting Back on Track." Pp. 246 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and E.C. Wolf. 1987. "Charting a Sustainable Course." Pp. 196-213 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R., C. Flavin, and S. Postel. 1990. "Picturing a Sustainable Society." Pp. 173-190 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R., S. Postel, and C. Flavin. 1992. "From Growth to Sustainable Development." Pp. 119-127 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.

- Bruntland, G.H. 1993. "The Environment, Security and Development." Pp. 15-26 in *SIPRI Yearbook 1993: World Armaments and Disarmament*. Stockholm International Peace Research Institute. New York: Oxford University Press.
- Burningham, K. and M. O'Brien. 1994. "Global Environmental Values and Local Contexts of Action." *Sociology* 28 (November): 913-932.
- Caccia, C. 1989. "Political Leadership and the Brundtland Report: What are the Implications for Public Policy?" Pp. 204-208 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Caldwell, L.K. 1990a. *Between Two Worlds: Science, the Environmental Movement, and Policy Choice*. Cambridge: Cambridge University Press.
- Caldwell, L.K. 1990b. *International Environmental Policy: Emergence and Dimensions*. Second Edition. Durham, NC: Duke University Press.
- Cameron, J. 1994. "The GATT and the Environment." Pp. 100-121 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Carley, M. and I. Christie. 1993. *Managing Sustainable Development*. London: Earthscan.
- Carpenter, R.A. and J.A. Dixon. 1985. "Ecology Meets Economics: A Guide to Sustainable Development." *Environment* 25 (5): 6-32.
- Carroll, J.E. (ed.). 1988. *International Environmental Diplomacy: The Management and Resolution of Transfrontier Environmental Problems*. Cambridge: Cambridge University Press.
- Catton, Jr., W.R. 1983. "Probable Collective Responses to Ecological Scarcity? How Violent?" *Sociological Perspectives* 27 (January): 3-20.
- Cavalcanti, C. 1991. "Government Policy and Ecological Concerns: Some Lessons from the Brazilian Experience." Pp. 474-485 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Chandler, W.U. 1987. "Designing Sustainable Economies." Pp. 177-195 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Chatterjee, P. and M. Finger. 1994. *The Earth Brokers: Power, Politics and World Development*. New York: Routledge.
- Chayes, A. and A.H. Chayes. 1991. "Adjustment and Compliance Processes in International Regulatory Regimes." Pp. 280-308 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Choucri, N. and R.C. North. 1975. *Nations in Conflict: National Growth and International Violence*. San Francisco: W.H. Freeman.
- Choucri, N. and R.C. North. 1993. "Population and (In)security: National Perspectives and Global Imperatives." Pp. 229-256 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt,

- D. Hagland, and J. Kirton. New York: Oxford University Press.
- Clad, J.C. and R.D. Stone. 1993. "New Mission for Foreign Aid." *Foreign Affairs* 72 (1): 196-205.
- Clark, M.E. 1991. "Rethinking Ecological and Economic Education: A Gestalt Shift." Pp. 400-415 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Clark, W.C. 1989. "Managing Planet Earth." *Scientific American* 261 (September): 19-26.
- Clark, W.C. and R.E. Munn (eds.) 1987. *Sustainable Development of the Biosphere*. Cambridge: Cambridge University Press.
- Cleary, D. 1991. "The 'Greening' of the Amazon." Pp. 116-140 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Clinton, R.L. 1979. "Population Dynamics and Future Prospects for Development." Pp. 56-74 in *The Global Predicament: Ecological Perspectives on World Order*, eds. D.W. Orr and M.S. Soroos. Chapel Hill, NC: University of North Carolina Press.
- Colby, M.E. 1991. "Environmental Management in Development: The Evolution of Paradigms." *Ecological Economics* 3: 193-213.
- Common, M. 1995. *Sustainability and Policy: Limits to Economics*. Cambridge: Cambridge University Press.
- Commoner, B. 1989. "An Assessment of Environmental Progress: The Reason for Failure." Pp. 151-167 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Conca, K., M. Albery, and G.D. Dabelko (eds.). 1995. *Green Planet Blues: Environmental Politics from Stockholm to Rio*. Boulder, CO: Westview Press.
- Connelly, P. and R. Perlman. 1975. *The Politics of Scarcity: Resource Conflicts in International Relations*. New York: Oxford University Press.
- Coombs, H.C. 1990. *The Return of Scarcity: Strategies for an Economic Future*. Cambridge: Cambridge University Press.
- Cooper, R.N. 1992. "United States Policy Towards the Global Environment." Pp. 290-312 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Costanza, R. 1991a. "Assuring Sustainability of Ecological and Economic Systems." Pp. 331-343 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Costanza, R. (ed.) 1991b. *Ecological Economics: The Science and Management of Sustainability*. New York: Columbia University Press.
- Costanza, R. 1994. "Three General Policies to Achieve Sustainability." Pp. 392-407 in *Investing in Natural Capital: The Ecological Economics Approach to Sustainability*, eds. A.M. Jansson, M. Hammer, C. Folke, and R. Costanza. Washington, DC: Island Press.
- Costanza, R. and H.E. Daly. 1992. "Natural Capital and Sustainable Development." *Conservation Biology* 6 (1): 37-46.
- Costanza, R., H.E. Daly, and J.A. Bartholomew. 1991. "Goals, Agenda and Policy Recommendations for Ecological Economics." Pp. 1-20 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Crowe, H.B. 1992. "Longer Broom Handles." Pp. 145-153 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Cumberland, J.H. 1991. "Intergenerational Transfers and Ecological Sustainability." Pp. 355-366 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Cvetkovitch, G. and T.C. Earle. 1994. "The Construction of Justice: A Case Study of Public Participation in Land Management." *Journal of Social Issues* 50 (3): 161-178.
- Dalton, R.J. 1994. *The Green Rainbow: Environmental Groups in Western Europe*. New Haven: Yale University Press.
- Daly, H.E. (ed.) 1973. *Toward a Steady-State Economy*. San Francisco: W.H. Freeman
- Daly, H.E. 1974. "The Economics of the Steady State." *American Economic Review* 64 (May): 15-21.
- Daly, H.E. 1977a. *Steady-State Economics*. San Francisco: W.H. Freeman.
- Daly, H.E. 1977b. "The Steady-State Economy: What, Why, and How." Pp. 105-130 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Daly, H.E. 1989a. "Steady-State and Growth Concepts for the Next Century." Pp. 73-87 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Daly, H.E. 1989b. "The Economic Growth Debate: What Some Economists have Learned but Many have Not." *Journal of Environmental Economics and Management* 9: 323-336.
- Daly, H.E. 1991. "Sustainable Development: From Concept and Theory to Operational Principles." Pp. 25-43 in *Resources, Environment, and Population: Present Knowledge and Future Options*. A Supplement to Vol. 16, 1990 of the Population and Development Review. New York:

- Oxford University Press.
- Daly, H.E. 1994. "Fostering Environmentally Sustainable Development: Four Parting Suggestions for the World Bank." *Ecological Economics* 10 (3): 183-187.
- Daly, H.E. and J. B. Cobb, Jr. 1989. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Daly, H.E. and J. B. Cobb, Jr. 1994. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Second edition, Updated and Expanded. Boston: Beacon Press.
- Daly, H.E. and R. Goodland. 1994a. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT." *Ecological Economics* 9 (January): 73-92.
- Daly, H.E. and R.E. Goodland. 1994b. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT: Part I." *Population and Environment* 15 (May): 395-427.
- Daly, H.E. and R.E. Goodland. 1994c. "An Ecological-Economic Assessment of Deregulation of International Commerce under GATT: Part II." *Population and Environment* 15 (July): 477-503.
- Dankelman, I. and J. Davidson. 1988. *Women and Environment in the Third World: Alliance for the Future*. London: Earthscan.
- Dasman, R.F. 1985. "Achieving the Sustainable Use of Species and Ecosystems." *Landscape Planning* 12 (4): 211-219.
- Deudney, D. 1983. *Whole-Earth Security: A Geopolitics of Peace*. Worldwatch Paper No. 55. Washington, DC: Worldwatch Institute.
- Deudney, D. 1990. "The Case Against Linking Environmental Degradation and National Security." *Millennium* 19 (3): 461-476.
- DeWalt, B.R. 1994. "Using Indigenous Knowledge to Improve Agriculture and Natural Resource Management." *Human Organization* 53 (Summer): 123-131.
- Dewitt, D. 1993. "Introduction: The New Global Order and the Challenges of International Security." Pp. 1-10 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Dixon, J.A. and L.A. Fallon. 1989. "The Concept of Sustainability: Origins, Extensions, and Usefulness for Policy." *Society and Natural Resources* 2 (2): 73-84.
- Documents. 1989. "For Global Cooperation on Environmental Problems." *Population and Development Review* 15 (December): 784-787. [Excerpt from a 1989 address at the United Nations General Assembly by G.H. Brundtland.]

- Documents. 1992. "The 'Earth Summit' on Population." *Population and Development Review* 18 (September): 571-582.
- Documents. 1993. "Recommendations of the Latin American and Caribbean Regional Conference on Population and Development." *Population and Development Review* 19 (December): 883-893.
- Dogramacı, E. 1992. "Women and the Environment." Pp. 196-200 in *Change: Threat or Opportunity?* Vol. V: *Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Dooge, J.C.I., G.T. Goodman, J.W.M. la Rievriere, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie (eds.). 1992. *An Agenda for Science in Environment and Development*. Cambridge: Cambridge University Press.
- Dorfman, R. 1985. "An Economist's View of Natural Resource and Environmental Problems." Pp. 67-95 in *The Global Possible: Resources, Development, and the New Century*, ed. R. Repetto. New Haven, CT: Yale University Press.
- Dorfman, R. 1991. "Protecting the Global Environment: An Immodest Proposal." *World Development* 19 (1): 103-110.
- Draggan, S., J. Cohrssen, and R.E. Morrison (eds.). 1987. *Preserving Ecological Systems: The Agenda for Long-Term Research and Development*. New York: Praeger.
- Dudek, D., R. Stewart, and J. Wiener. 1994. "Technology-based Approaches Versus Market-based Approaches." Pp. 210-226 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Easterbrook, G. 1995. *A Moment on Earth: The Coming Age of Environmental Optimism*. New York: Viking Press.
- Eberstadt, N. 1991. "Population Change and National Security." *Foreign Affairs* 70 (Spring): 115-131.
- Economic Commission for Latin America (ECLAC). 1991. *Sustainable Development: Changing Production Patterns, Social Equity and the Environment*. Santiago, Chile: United Nations.
- Eele, G., A. Duncan, and A. Lawson. 1994. "Environmental Change and the Response by Small-Holder Farmers: Some Evidence from Tanzania." Pp. 269-286 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Ehrlich, P.R. and A.H. Ehrlich. 1991. *Healing the Planet: Strategies for Resolving the Environmental Crisis*. Reading, MA: Addison-Wesley.
- Ehrlich, P.R., A.H. Ehrlich, and G.C. Daily. 1993. "Food Security, Population, and Environment." *Population and Development Review* 19 (March): 1-32.

- Einarsson, N. 1993. "All Animals are Equal But Some are Cetaceans: Conservation and Cultural Conflict." Pp. 73-84 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Farber, S. 1991. "Local and Global Incentives for Sustainability: Failures in Economic Systems." Pp. 344-354 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Finger, M. 1994. "From Knowledge to Action? Exploring the Relationships Between Environmental Experiences, Learning and Behavior." *Journal of Social Issues* 50 (3): 141-160.
- Fisher, J. 1993. *The Road from Rio: Sustainable Development and the Nongovernmental Movement in the Third World*. Westport, CT: Praeger.
- Frank, J.D., U.E. Simonis, and J. van der Straaten (eds.) 1992. *Sustainability and Environmental Policy: Restraints and Advances*. Berlin: Edition Sigma.
- French, H. 1990. *Green Revolutions: Environmental Reconstruction in Eastern Europe and the Soviet Union*. Worldwatch Paper No. 99. Washington, DC: Worldwatch Institute.
- French, H. 1992. *After the Earth Summit: The Future of Environmental Governance*. Worldwatch Paper No. 107. Washington, DC: Worldwatch Institute.
- French, H. 1994. "Rebuilding the World Bank." Pp. 156-176 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- French, H. 1995. "Forging a New Global Partnership." Pp. 170-189 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Fri, R.W. and C.L. Cooper. 1992. "Technology Transfer from Developed to Developing Countries." *Resources* 106 (Winter): 33.
- Friedmann, J. and H. Rangan. 1993. "Introduction: In Defense of Livelihood." Pp. 1-21 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Frosch, R.A. 1989. "Strategies for Manufacturing." *Scientific American* 261 (September): 94-102.
- Frosch, R.A. 1995. "The Industrial Ecology of the 21st Century." *Scientific American* 273 (September): 144-147.
- Gasser, H.-P. 1995. "For Better Protection of the Natural Environment in Armed Conflict: A Proposal for Action." *American Journal of International Law* 89 (July): 637-644.
- Gedicks, A. 1993. *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations*. Boston: South End Press.
- Gleick, P.H. 1993. "Water and Conflict: Fresh Water Resources and International Security." *International Security* 18 (1): 79-112.

- Golitsyn, G. 1994. "Military-to-Civilian Conversion and the Environment in Russia." Pp. 429-436 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Gore, Jr., A. 1989. "The Global Environment: A National Security Issue." Pp. 177-186 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Gore, A. 1992. "A Global Marshall Plan." Pp. 295-360 in his *Earth in the Balance: Ecology and the Human Spirit*. Boston: Houghton Mifflin.
- Gray, C.B. and D.B. Rivkin. 1991. "A 'No Regrets' Environmental Policy." *Foreign Policy*, No. 83 (Summer): 47-65.
- Griefahn, M. 1994. "Initiatives in Lower Saxony to Link Ecology to Economy." Pp. 423-428 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Grove-White, R., S.P. Kapitzka and V. Shiva. 1992. "Public Awareness, Science and the Environment." Pp. 239-253 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Grubb, M., M. Koch, A. Munson, F. Sullivan, and K. Thompson. 1993. *The Earth Summit Agreements: A Guide and Assessment*. London: Earthscan.
- Guimarães, R.P. 1995. *The Ecopolitics of Development in the Third World: Politics and Environment in Brazil*. Boulder, CO: Lynne Rienner.
- Gulhati, K. and L.M. Bates. 1994. "Developing Countries and the International Population Debate: Politics and Pragmatism." Pp. 47-77 in *Population and Development: Old Debates, New Conclusions*, by R. Cassen and Contributors. U.S.-Third World Policy Perspectives, No. 19. New Brunswick, NJ: Transaction Publishers.
- Gurgulino de Souza, H. 1992. "Technology and Ecology." Pp. 154-160 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Haas, P.M. with J. Sundgren. 1993. "Evolving International Environmental Law: Changing Practices of National Sovereignty." Pp. 401-429 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Haas, P.M., R.O. Keohane, and M.A. Levy (eds.). 1993. *Institutions for the Earth: Sources of Effective International Environmental Protection*. Cambridge, MA: The MIT Press.

- Hagerty, S. 1992. "The Globalization of Finance: Debt-for-Nature and Debt-for-Scholar Swaps." Pp. 161-167 in *Change: Threat or Opportunity?* Vol. V: *Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Hågvar, S. 1994. "Preserving the Natural Heritage: The Process of Developing Attitudes." *Ambio* 23 (8): 515-518.
- Hamilton, J.M. 1991. "Survival Alliances." Pp. 3-14 in *Media and the Environment*, eds. C.L. LaMay and E.E. Dennis. Washington, DC: Island Press.
- Hardaway, R.M. 1994. *Population, Law, and the Environment*. Westport, CT: Praeger.
- Harman, W.W. 1985. "Colour the Future Green." *Futures* 17 (August): 318-330.
- Harris, J.M. 1991. "Global Institutions and Ecological Crisis." *World Development* 19 (1): 111-122.
- Harrison, J., K. Miller, and J. McNeely. 1982. "The World Coverage of Protected Areas: Development Goals and Environmental Needs." *Ambio* 11 (5): 238-245.
- Hawken, P. 1993. *The Ecology of Commerce: A Declaration of Sustainability*. New York: Harper-Collins.
- Heaton, Jr., G.R., D. Banks, and D.W. Ditz. 1994. *Missing Links: Technology and Environmental Improvement in the Industrializing World*. Washington, DC: World Resources Institute.
- Heaton, Jr., G.R., R. Repetto, and R. Sobin. 1991. *Transforming Technology: An Agenda for Environmentally Sustainable Growth in the 21st Century*. Washington, DC: World Resources Institute.
- Helm, D. (ed.) 1991. *Economic Policy Towards the Environment*. Oxford: Basil Blackwell.
- Helm, D. and D. Pearce. 1991. "Economic Policy towards the Environment: An Overview." Pp. 1-24 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Henderson, H. 1991. *Paradigms in Progress: Life Beyond Economics*. Indianapolis, IN: Knowledge Systems, Inc.
- Henson, P. 1994. "Population Growth, Environmental Awareness, and Policy Direction." *Population and Environment* 15 (4): 265-278.
- Hoban, T.M. and R.O. Brooks. 1996. *Green Justice: The Environment and the Courts*. Second Edition. Boulder, CO: Westview Press.
- Holdgate, M.W. 1989. "Implications for Public Policy: Options for Action." Pp. 187-193 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.

- Holmberg, J. 1992. "Financing Sustainable Development." Pp. 289-320 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Holt, D.A. and S.L. Rawlins. 1990. "New Technologies." Pp. 269-283 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Homer-Dixon, T.F. 1991. "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* 16 (Fall): 76-116.
- Homer-Dixon, T.F. 1993. "Global Environmental Change and International Security." Pp. 185-228 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Homer-Dixon, T.F. 1994. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19 (Summer): 5-40.
- Hurrell, A. and B. Kingsbury (eds.). 1992a. *The International Politics of the Environment: Actors, Interests, and Institutions*. New York: Oxford University Press.
- Hurrell, A. and B. Kingsbury. 1992b. "The International Politics of the Environment: An Introduction." Pp. 1-47 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Hyndman, D. 1994. "Conservation Through Self-Determination: Promoting the Interdependence of Cultural and Biological Diversity." *Human Organization* 53 (Fall): 296-302.
- Imber, M. 1991. "Environmental Security: A Task for the UN System." *Review of International Studies* 17 (April): 201-212.
- Imber, M. 1993a. "Too Many Cooks: The Post-Rio Reform of the United Nations." *International Affairs* 69 (1): 55-70.
- Imber, M. 1993b. "The United Nations' Role in Sustainable Development." *Environmental Politics* 2 (4): 123-136.
- Imber, M. 1994. *Environment, Security and UN Reform*. New York: St. Martin's Press.
- International Union for the Conservation of Nature, United Nations Environment Programme, and World Wildlife Fund. 1991. *Caring for the Earth: A Strategy for Sustainable Living*. Gland, Switzerland: IUCN.
- Ivory, M. 1992. "The Politics of US Environmental Assistance, 1976-86." *World Development* 20 (7): 1061-1076.
- Jackson, C. 1994. "Questioning Synergism: Win-Win with Women in Population and Environment Policies?" Pp. 439-458 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.

- Jacobson, J. 1983. *Promoting Population Stabilization: Incentives for Small Families*. Worldwatch Paper No. 54. Washington, DC: Worldwatch Institute.
- Jacobson, J. 1987. *Planning the Global Family*. Worldwatch Paper No. 80. Washington, DC: Worldwatch Institute.
- Jacobson, J. 1990. *The Global Politics of Abortion*. Worldwatch Paper No. 97. Washington, DC: Worldwatch Institute.
- Jansson, A. 1991. "On the Significance of Open Boundaries for an Ecologically Sustainable Development of Human Societies." Pp. 449-458 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Jasanoff, S. 1993. "India at the Crossroads in Global Environmental Policy." *Global Environmental Change* 3 (1): 32-52.
- Johnels, A. 1983. "Conference on Environmental Research and Management Priorities." *Ambio* 12 (2): 58-120.
- Johnson, S.P. 1994. *World Population --- Turning the Tide: Three Decades of Progress*. Norwell, MA: Kluwer Academic Publishers.
- Juma, C. and M. Sagoff. 1992. "Policies for Technology." Pp. 265-281 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Kassiola, J.J. 1990. *The Death of Industrial Civilization: The Limits of Economic Growth and the Repoliticization of Advanced Industrial Society*. Albany: State University of New York Press.
- Keyfitz, N. 1992. "Seven Ways of Causing the Less Developed Countries' Population to Disappear --- in Theory." *European Journal of Population* 8 (2): 149-167.
- Kimball, L. 1994. "Environmental Law and Policy in Antarctica." Pp. 122-139 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Kimball, L.A. 1992. *Forging International Agreement: Strengthening Inter-Governmental Institutions for Environment and Development*. Washington, DC: World Resources Institute.
- King, J. 1991. "The ECCO Approach to Planning and Sustainable Development." Pp. 18-35 in *Modelling for Population and Sustainable Development*, eds. A. Gilbert and L. Braat. New York: Routledge.
- Kismadi, M.S. 1994. "Integration of Population, Environment and Development Policies." Pp. 35-42 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.

- Korten, D.C. 1992. "Development Heresy and the Ecological Revolution." *Development* 1992 (2): 97-102.
- Kottak, C.P. and A.C.G. Costa. 1993. "Ecological Awareness, Environmental Action, and International Conservation Strategy." *Human Organization* 52 (Winter): 335-343.
- Kraft, M.E. 1977. "Political Change and the Sustainable Society." Pp. 173-196 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- LaMay, C.L. and E.E. Dennis (eds.). 1991. *Media and the Environment*. Washington, DC: Island Press.
- Lang, W., J.B. Opschoor and C. Perrings. 1992. "Institutional Arrangements." Pp. 283-295 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press.
- Leff, E. 1995. *Green Production: Toward an Environmental Rationality*. New York: Guilford Publications.
- Legault, A. 1993. "Conclusion: Towards the Twenty-First Century." Pp. 401-415 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Lester, J.P. (ed.). 1989. *Environmental Politics and Policy: Theories and Evidence*. Durham, NC: Duke University Press.
- Lindborg, N. 1992. "Nongovernmental Organizations: Their Past, Present, and Future Role in International Environmental Negotiations." Pp. 1-25 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Lindsay, J.M. 1993. "Overlaps and Tradeoffs: Coordinating Policies for Sustainable Development in Asia and the Pacific." *Journal of Developing Areas* 28 (1): 21-30.
- Linear, M. 1985. *Zapping the Third World: The Disaster of Development Aid*. London: Zed Books.
- List, M. and V. Rittberger. 1992. "Regime Theory and International Environmental Management." Pp. 85-109 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Lo, C.P. 1989. "Recent Spatial Restructuring in Zhujiang Delta, South China: A Study of Socialist Regional Development Strategy." *Annals of the Association of American Geographers* 79 (June): 293-308.
- Lombardini, S. 1989. "Economics versus Ecology." Pp. 139-148 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.

- Low, B.S. and J.T. Heinen. 1993. "Population, Resources, and Environment: Implications of Human Behavioral Ecology for Conservation." *Population and Environment* 15 (1): 7-41.
- Lowi, M.R. 1993. "Bridging the Divide: Transboundary Resource Disputes and The Case of West Bank Water." *International Security* 18 (1): 113-138.
- Lutz, E. and M. Young. 1992. "Integration of Environmental Concerns into Agricultural Policies of Industrial and Developing Countries." *World Development* 20 (2): 241-253.
- MacDonald, G.J., D.L. Nielson, and M.A. Stern (eds.). 1996. *Latin American Environmental Policy in International Perspective*. Boulder, CO: Westview Press.
- MacNeill, J. 1989a. "'Our Common Future': Sustaining the Momentum." Pp. 15-25 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- MacNeill, J. 1989b. "Strategies for Sustainable Economic Development." *Scientific American* 261 (September): 105-113.
- MacNeill, J., P. Winsemius, and T. Yakushiji. 1991. *Beyond Interdependence: The Meshing of the World's Economy and Ecology*. New York: Oxford University Press.
- Mäler, K.G. 1991. "International Environmental Problems." Pp. 156-201 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Mandel, R. 1988. *Conflict Over the World's Resources*. Westport, CT: Greenwood Press.
- Martinez-Alier, J. 1991. "Ecological Perception, Environmental Policy and Distributional Conflicts: Some Lessons From History." Pp. 118-136 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Massaro, R.J. 1993. "Beyond Participation: Empowerment for Environmental Action in Tanzania's West Usambara Mountains." Pp. 23-51 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Mathews, J.T. 1989. "Redefining Security." *Foreign Affairs* 62 (Spring): 162-177.
- Mathews, J.T. 1991a. "Introduction and Overview." Pp. 15-38 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Mathews, J.T. (ed.). 1991b. *Preserving the Global Environment: The Challenge of Shared Leadership*. New York: W.W. Norton.
- Mathews, J.T. 1991c. "The Implications for U.S. Policy." Pp. 309-323 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.

- Mattoo, A. and H.V. Singh. 1994. "Eco-Labeling: Policy Considerations." *Kyklos* 47 (1): 53-65.
- Maull, H.W. 1992. "Japan's Global Environmental Policies." Pp. 354-372 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Mbuna, J. 1992. "Strengthening UNEP to Improve Environmental Treaty Compliance." Pp. 163-172 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- McCleary, R. 1991. "The International Community's Claim to Rights in Brazilian Amazonia." *Political Studies* 39 (4): 691-707.
- McCloskey, M. 1991. "Twenty Years of Change in the Environmental Movement: An Insider's View." *Society and Natural Resources* 4: 273-284.
- McDonald, M.D. 1993. "Dams, Displacement, and Development: A Resistance Movement in Southern Brazil." Pp. 79-105 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- McKibben, B. 1989. *The End of Nature*. New York: Random House.
- Meadows, D.H. 1990. "A Reaction from a Multitude." Pp. 513-521 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Meadows, D.H. 1991. "Changing the World Through the Informationsphere." Pp. 67-79 in *Media and the Environment*, eds. C.L. LaMay and E.E. Dennis. Washington, DC: Island Press.
- Melone, M.A. 1993. "The Struggle of the *Segingueiros*: Environmental Action in the Amazon." Pp. 106-126 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Middleton, N., P. O'Keefe, and S. Moyo. 1993. *Tears of the Crocodile: From Rio to Reality in the Developing World*. Boulder, CO: Westview Press.
- Midlarsky, M.I. 1982. "Scarcity and Inequality: Prologue to the Onset of Mass Revolution." *Journal of Conflict Resolution* 26 (1): 3-38.
- Mikesell, R.F. and L.F. Williams. 1992. *International Banks and the Environment: From Growth to Sustainability: An Unfinished Agenda*. San Francisco: Sierra Club Books.
- Milbrath, L.W. 1984. *Environmentalists: Vanguard for a New Society*. Albany: State University of New York Press.
- Milbrath, L.W. 1989. *Envisioning a Sustainable Society: Learning Our Way Out*. Albany: State University of New York Press.
- Miller, M.A.L. 1995. *The Third World in Global Environmental Politics*. Boulder, CO: Lynne Rienner.

- Mitsch, W.J. 1991. "Ecological Engineering: Approaches to Sustainability and Biodiversity in the U.S. and China." Pp. 428-448 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Mohrmann, J.C.J. 1992. "New Approaches for Environmental Management." *Development* 1992 (2): 17-21.
- Montgomery, J.D. 1993a. "The Asia-Pacific Region as an Environmental Region." *Journal of Developing Areas* 28 (1): 3-12.
- Montgomery, J.D. 1993b. "A Program for Enhancing Environmental Technology Choices in Asia and the Pacific." *Journal of Developing Areas* 28 (1): 31-38.
- Morell, D. with J. Poznanski. 1985. "Rhetoric and Reality: Environmental Politics and Environmental Administration in Developing Countries." Pp. 137-176 in *Divesting Nature's Capital: The Political Economy of Environmental Abuse in the Third World*, ed. H.J. Leonard. New York: Holmes & Meier.
- Moss, H. 1993. "Appendix IA. Resource Scarcity and International Environmental Security." Pp. 27-36 in *SIPRI Yearbook 1993: World Armaments and Disarmament*. Stockholm International Peace Research Institute. New York: Oxford University Press.
- Mulenex, D. 1992. "Improving Compliance Provisions in International Environmental Agreements." Pp. 173-190 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Munasinghe, M., W. Cruz, and J. Warford. 1993. "Are Economy-wide Policies Good for the Environment?" *Finance and Development* 30 (3): 40-43.
- Munda, G., P. Nijkamp, and P. Rietveld. 1994. "Qualitative Multicriteria Evaluation for Environmental Management." *Ecological Economics* 10 (2): 97-112.
- Munn, R.E. 1989. "Towards Sustainable Development: An Environmental Perspective." Pp. 49-72 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Muñoz, H. (ed.) 1992. *Environment and Diplomacy in the Americas*. Boulder, CO: Lynne Rienner.
- Myers, N. 1986. "The Environmental Dimension to Security Issues." *The Environmentalist* 6 (4): 251-257.
- Myers, N. 1989a. "Environmental Security: The Case of South Asia." *International Environmental Affairs* 1 (2): 138-154.
- Myers, N. 1989b. "The Environmental Basis of Sustainable Development. Pp. 57-68 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.

- Myers, 1991. *Gaia Atlas of Future Worlds: Challenge and Opportunity in an Age of Change*. New York: Doubleday.
- Myers, N. 1993a. "Biodiversity and the Precautionary Principle." *Ambio* 22: (1): 74-79.
- Myers, N. 1993b. "Environmental Refugees in a Globally Warmed World." *BioScience* 44 (6): 1-10.
- Myers, N. 1993c. *Ultimate Security: The Environmental Basis of Political Stability*. New York: W.W. Norton.
- Myers, N., U.R. Nath, and M. Westlake. 1984. *GAIA: An Atlas of Planet Management*. New York: Anchor Press.
- Naff, T. and R. Matson (eds.). 1984. *Water in the Middle East: Conflict or Cooperation*. Boulder, CO: Westview Press.
- Naigh, N. 1992. "The European Community and International Environmental Policy." Pp. 228-249 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Newland, K. 1977. *Women and Population Growth: Choice Beyond Childbearing*. Worldwatch Paper No. 16. Washington, DC: Worldwatch Institute.
- Nijkamp, P. and F. Soesteman. 1988. "Environmental Policy between Economic Development and Ecological Sustainability." *International Journal of Social Economics* 15 (3/4): 88-102.
- Nitze, W.A. 1993. "Swords into Plowshares: Agenda for Change in the Developing World." *International Affairs* 69 (1): 39-53.
- Njiti, C.F. and D.M. Sharpe. 1994. "A Goal-Programming Approach to the Management of Competition and Conflict among Land Uses in the Tropics: The Cameroon Example." *Ambio* 23 (2/3): 112-119.
- Nobel, C. 1992. "A New Earth Order." Pp. 207-211 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Norgaard, R. 1988. "Sustainable Development: A Co-Evolutionary View." *Futures* (December): 606-620.
- Norgaard, R.B. 1994. *Development Betrayed: The End of Progress and a Coevolutionary Revisioning of the Future*. New York: Routledge.
- Norgaard, R. and R.B. Howarth. 1991. "Sustainability and Discounting the Future." Pp. 88-101 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Norman, C. 1978. *Soft Technologies, Hard Choices*. Worldwatch Paper No. 21. Washington, DC: Worldwatch Institute.
- Norton, B.G. 1991a. "Ecological Health and Sustainable Resource Management." Pp. 102-117 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Norton, B.G. 1991b. *Toward Unity Among Environmentalists*. New York: Oxford University Press.
- Nossiter, B.D. 1987. *The Global Struggle for More: Third World Conflicts with Rich Nations*. New York: Harper and Row.
- O'Neill, J. 1993. *Ecology, Policy and Politics: Human Well-Being and the Natural World*. New York: Routledge.
- O Riordan, T. 1988. "The Politics of Sustainability." Pp. 29-50 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Ophuls, W. 1977. "The Politics of the Sustainable Society." Pp. 157-172 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Ornstein, R. and P. Ehrlich. 1989. *New World, New Mind: Moving Toward Conscious Evolution*. New York: Simon & Schuster.
- Pallemaerts, M. 1994. "International Environmental Law from Stockholm to Rio: Back to the Future?" Pp. 1-19 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Palmer, G. 1992. "New Ways to Make International Environmental Law." *American Journal of International Law* 86 (April): 259-283.
- Panandiker, P. 1994. "Integration of Population, Environment and Development Policies." Pp. 29-34 in *Expert Group Meeting on Population, Environment and Sustainable Development*. Economic and Social Commission for Asia and the Pacific/United Nations Development Programme. Asian Population Studies Series No. 126. New York: United Nations.
- Panayotou, T. and C. Zinnes. 1994. "Free-Lunch Economics for Industrial Ecologists." Pp. 383-397 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Park, C. 1994. "Environmental Issues." *Progress in Physical Geography* 18 (3): 411-424.
- Parsons, J. 1994. "Population, Environment and Policy Relations, An Historical Overview." Pp. 87-99 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Pearce, D. 1988. "Optimal Prices for Sustainable Development." Pp. 57-66 in *Economics, Growth and Sustainable Environments*, eds. D. Collard, D. Pearce, and D. Ulph. London: Macmillan
- Pearce, D. 1991a. "Population Growth." Pp. 109-137 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Pearce, D. 1991b. "The Global Commons." Pp. 11-30 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.

- Pearce, D.W. and J.J. Warford. 1993. *World Without End: Economics, Environment, and Sustainable Development*. New York: Oxford University Press.
- Perrings, C. 1991. "Reserved Rationality and the Precautionary Principle: Technological Change, Time and Uncertainty in Environmental Decision Making." Pp. 153-166 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Pezzey, J. 1992. *Sustainable Development Concepts: An Economic Analysis*. World Bank Environment Paper Number 2. Washington, DC: The World Bank.
- Piddington, K. 1992. "The Role of the World Bank." Pp. 212-227 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Pirages, D.C. 1977. "Introduction: A Social Design for Sustainable Growth." Pp. 1-13 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Plant, C. and J. Plant (eds.). 1990. *Green Business: Hope or Hoax?* Bideford: Green Books.
- Platt, J. 1969. "What We Must Do." *Science* 166 (16 May): 1115-1121.
- Platt, J. 1977. "Social Innovations Required for a Sustainable Global Society." Pp. 274-284 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Porras, I.M. 1994. "The Rio Declaration: A New Basis For International Cooperation." Pp. 20-33 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Porter, G. 1995. "Environmental Security as a National Security Issue." *Current History* 94 (May): 218-222.
- Porter, G. and J.W. Brown. 1995. *Global Environmental Politics*. Second Edition. Boulder, CO: Westview Press.
- Potter, D. 1994. "Assessing Japan's Environmental Aid Policy." *Pacific Affairs* 67 (Summer): 200-215.
- Prins, G. 1990. "Politics and the Environment." *International Affairs* 66 (October): 711-730.
- Pye-Smith, C., G.B. Feyerabend, and R. Sandbrook. 1994. *The Wealth of Communities: Stories of Success in Local Environmental Management*. London: Earthscan.
- Randers, J. and W. Behrens. 1979. "Watch for the Foothills: Signaling the End to Growth in a Finite World." Pp. 18-38 in *The Global Predicament: Ecological Perspectives on World Order*, eds. D.W. Orr and M.S. Soroos. Chapel Hill, NC: University of North Carolina Press.

- Rangan, H. 1993. "Romancing the Environment: Popular Environmental Action in the Garhwal Himalayas." Pp. 155-181 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Rauscher, M. 1994. "On Ecological Dumping." *Oxford Economic Papers* 46 (October): 822-840.
- Redclift, M. 1987. *Sustainable Development: Exploring the Contradictions*. London: Methuen.
- Redclift, M. 1988. "Economic Models and Environmental Values: A Discourse on Theory." Pp. 51-66 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Redclift, M. 1992. "A Framework for Improving Environmental Management: Beyond the Market Mechanism." *World Development* 20 (2): 255-259.
- Reed, D. (ed.). 1992. *Structural Adjustment and the Environment*. Boulder, CO: Westview Press.
- Rees, J. 1990. *Natural Resources: Allocation, Economics and Policy*. Second edition. London: Routledge.
- Renner, M. 1989. *National Security: The Economic and Environmental Dimensions*. Worldwatch Paper No. 89. Washington, DC: Worldwatch Institute.
- Repetto, R. 1989. "Economic Incentives for Sustainable Production." Pp. 69-86 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Repetto, R. 1992. "Promoting Environmentally Sound Economic Progress: What the North Can Do." Pp. 46-87 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Rich, B. 1990. "The Emperor's New Clothes: The World Bank and Environmental Reform." *World Policy Journal* 7 (Spring): 305-329.
- Rich, B. 1994. *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development*. Boston: Beacon Press.
- Robbins, J.G. and R. Greenwald. 1994. "Environmental Attitudes Conceptualized Through Developmental Theory: a Qualitative Analysis." *Journal of Social Issues* 50 (3): 29-47.
- Robinson, N.A. 1993. "Diplomacy: New Frontier." Pp. 417-448 in *Gale Environmental Almanac*, ed. R. Hoyle. Detroit: Gale Research, Inc.
- Romm, J.J. 1993. *Defining National Security: The Nonmilitary Aspects*. New York: Council on Foreign Relations Press.
- Ross, L. 1992. "The Politics of Environmental Policy in the People's Republic of China." *Policy Studies Journal* 20 (Winter): 629-632.

- Rothenberg, J. 1993a. "Economic Perspective on Time Comparisons: Evaluation of Time Discounting." Pp. 307-332 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Rothenberg, J. 1993b. "Economic Perspective on Time Comparisons: Alternative Approaches to Time Comparisons." Pp. 355-397 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Rowlands, I.H. 1994. "North-South Politics, Environment, Development and Population: A Post-Rio View." Pp. 477-487 in *Environment and Population Change*, eds. B. Zaba and J. Clarke. Liège, Belgium: Ordina Publications.
- Rowley, J. and J. Holmberg. 1992. "Living in a Sustainable World." Pp. 321-346 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Rubin, S.M., J. Shatz, and C. Deegan. 1994. "International Conservation Finance: Using Debt Swaps and Trust Funds to Foster Conservation of Biodiversity." *Journal of Social, Political and Economic Studies* 19 (Spring): 21-43.
- Ruckelshaus, W.D. 1989a. "Toward a Global Environmental Policy." Pp. 3-9 in *Global Change and Our Common Future: Papers From a Forum*, eds. R.S. DeFries and T.F. Malone. Washington, DC: National Academy Press.
- Ruckelshaus, W.E. 1989b. "Toward a Sustainable World." *Scientific American* 261 (September): 114-120B.
- Ryan, T. 1991. "Network Earth: Advocacy, Journalism and the Environment." Pp. 81-90 in *Media and the Environment*, eds. C.L. LaMay and E.E. Dennis. Washington, DC: Island Press.
- Rycroft, R.W. 1991. "Environmentalism and Science: Politics and the Pursuit of Knowledge." *Knowledge* 13 (December): 150-169.
- Saltiel, J., J.W. Bauder, and S. Palakovich. 1994. "Adoption of Sustainable Agriculture Practices: Diffusion, Farm Structure, and Profitability." *Rural Sociology* 59 (Summer): 333-349.
- Sand, P.H. 1990. "Innovations in International Environmental Governance." *Environment* 32 (9): 16-20, 40-45.
- Sand, P.H. 1991. "International Cooperation: The Environmental Experience." Pp. 236-279 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Sand, P.H. 1992. "The Role of Environmental NGOs in International Environmental Law." *Development* 1992 (2): 28-32.
- Sandford, R. 1992. "Secretariats and International Environmental Negotiations: Two New Models." Pp. 27-59 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge,

- MA: Program on Negotiation Books, Harvard Law School.
- Sands, P. 1994a. "Enforcing Environmental Security." Pp. 50-64 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Sands, P. 1994b. "International Environmental Law: An Introductory Overview." Pp. xv-xlvi in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Sands, P. (ed.). 1994c. *Greening International Law*. New York: The New Press.
- Scherr, S.J. and J.E. Blumenfeld. 1994. "Implementing UNCED." Pp. 227-242 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Schor, J.B. 1991. "Global Equity and Environmental Crisis: An Argument for Reducing Working Hours in the North." *World Development* 19 (1): 73-84.
- Schnaiberg, A., N. Watts, and K. Zimmerman (eds.) 1986. *Distributional Conflicts in Environmental Resources Policy*. Aldershot, UK: Gower Publishing.
- Scimemi, G. 1989. "Comparative Analysis of Environmental Policies." Pp. 333-343 in *Economy and Ecology: Towards Sustainable Development*, eds. F. Archibugi and P. Nijkamp. Hingham, MA: Kluwer Academic Publishers.
- Seventy-Seventh American Assembly. 1991. "Final Report of the Seventy-Seventh American Assembly." Pp. 325-339 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Sharp, R. 1992. "Organizing for Change: People-Power and the Role of Institutions." Pp. 39-64 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Shrestha, A.M. 1991. "Winds from the West." Pp. 217-222 in *Media and the Environment*, eds. C.L. LaMay and E.E. Dennis. Washington, DC: Island Press.
- Simm, I. 1992. "The Remote Sensing Regime: Sources of Instability, Options for Reform, and Implications for Environmental Treaty Making." Pp. 85-102 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Simonis, U.E. 1992. "Industrial Restructuring for Sustainable Development: Three Points of Departure." Pp. 168-188 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Skolnikoff, E.B. 1993. "Science and Technology: The Sources of Change." Pp. 255-279 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.

- Smil, V. 1984. *The Bad Earth: Environmental Degradation in China*. Armonk, NY: M.E. Sharpe.
- Smil, V. 1993. *China's Environmental Crisis: An Inquiry into the Limits of National Development*. Armonk, NY: M.E. Sharpe.
- Smith, F. 1995. "Epilogue: Reappraising Humanity's Challenges, Humanity's Opportunities." Pp. 379-392 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Smith, P.M. and K. Warr (eds.) 1991. *Global Environmental Issues*. London: Hodder and Stoughton.
- Solow, R.M. 1993. "An Almost Practical Step Toward Sustainability." *Resources Policy* 19 (September): 162-172.
- Sontheimer, S. (ed.). 1991. *Women and the Environment: A Reader. Crisis and Development in the Third World*. London: Earthscan.
- Spector, B.I. and A.R. Korula. 1993. "Problems of Ratifying International Environmental Agreements: Overcoming Initial Obstacles in the Post-Agreement Negotiation Process." *Global Environmental Change* 3 (4): 369-381.
- Sprinz, D. and T. Vaahtoranta. 1994. "The Interest-Based Explanation of International Environmental Policy." *International Organization* 48 (Winter): 77-105.
- Stern, P.C., O.R. Young, and D. Druckman (eds.). 1992. *Global Environmental Change: Understanding the Human Dimensions*. Washington, DC: National Academy Press.
- Stevis, D., V.J. Assetto, and S.P. Mumme. 1989. "International Environmental Politics: A Theoretical Review of the Literature." Pp. 289-313 in *Environmental Politics and Policy: Theories and Evidence*, ed. J.P. Lester. Durham, NC: Duke University Press.
- Stiles, D. 1994. "Tribals and Trade: a Strategy for Cultural and Ecological Survival." *Ambio* 23 (2/3): 106-111.
- Stokes, B. 1977. *Filling the Family Planning Gap*. Worldwatch Paper No. 12. Washington, DC: Worldwatch Institute.
- Stokes, B. 1978. *Local Responses to Global Problems: A Key to Meeting Basic Human Needs*. Worldwatch Paper No. 17. Washington, DC: Worldwatch Institute.
- Stokes, B. 1980. *Men and Family Planning*. Worldwatch Paper No. 41. Washington, DC: Worldwatch Institute.
- Stone, C.D. 1993. *The Gnat is Older than Man: Global Environment and Human Agenda*. Princeton, NJ: Princeton University Press.
- Stone, C.D. 1994. "Defending the Global Commons." Pp. 34-49 in *Greening International Law*, ed. P. Sands. New York: The New Press.

- Stillman, P.G. 1977. "Property Rights, Ecological Limits, and the Steady-State Society." Pp. 220-240 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Stockdale, J. 1989. "Pro-Growth, Limits to Growth, and a Sustainable Development Synthesis." *Society and Natural Resources* 2 (3): 163-176.
- Streeten, P. 1991. "Global Prospects in an Interdependent World." *World Development* 19 (1): 123-133.
- Susskind, L.E. 1994. *Environmental Diplomacy: Negotiating More Effective Global Agreements*. New York: Oxford University Press.
- Susskind, L. and C. Ozawa. 1992. "Negotiating More Effective International Agreements." Pp. 142-165 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Susskind, L.E., E.J. Dolin, and J.W. Breslin (eds.). 1992. *International Environmental Treaty Making*. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Tarasofsky, R.G. 1994. "International Law and the Protection of the Environment During International Armed Conflict." Pp. 243-249 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Taylor, L. 1993. "The World Bank and The Environment: The World Development Report 1992." *World Development* 21 (5): 869-881.
- Thacher, P.S. 1992. "The Role of the United Nations." Pp. 183-211 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Thomas, C. (ed.) 1994. *Rio, Unravelling the Consequences*. London: Frank Cass.
- Tickell, C. 1993. "The World After the Summit Meeting in Rio." *Washington Quarterly* 16 (2): 75-82.
- Tietenberg, T.H. 1991a. "Economic Instruments for Environmental Regulation." Pp. 86-110 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Tietenberg, T.H. 1991b. "Managing the Transition: The Potential Role for Economic Policies." Pp. 187-226 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T. Mathews. New York: W.W. Norton.
- Tiezzi, E., N. Marchettini, and S. Ulgiati. 1991. "Integrated Agro-Industrial Ecosystems: An Assessment of the Sustainability of a Cogenerative Approach to Food, Energy and Chemicals Production by Photosynthesis." Pp. 459-473 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Tiffen, M. and M. Mortimore. 1994. "Malthus Controverted: The Role of Capital and Technology in Growth and Environmental Recovery in Kenya." *World Development* 22 (7): 997-1010.
- Tokar, B. 1993. *The Green Alternative: Creating an Ecological Future*. Revised edition. San Pedro, CA: R. and E. Miles.
- Tolba, M.K. and O.A. El-Kholy, in association with E. El-Hinnawi, M.W. Holdgate, D.F. McMichael, and R.E. Munn (eds.). 1992. *The World Environment 1972-1992*. London: Chapman and Hall.
- Tonna, A. 1995. "Pace of Change Gains Momentum in Asia-Pacific Region." *Waste Management & the Environment* 3 (September): 12-17.
- Trainer, T. 1992. "The Conserving Society." *Development* 1992 (2): 103-106.
- Turner, R.K. 1988. "Sustainability, Resource Conservation and Pollution Control: An Overview." Pp. 1-25 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- United Nations. 1992. "World Survey on Environmental Management Practice." *Water Resources Journal*, No. 174 (September): 1-11.
- United Nations. 1993. *Earth Summit Agenda 21: The United Nations Programme of Action from Rio*. New York: United Nations.
- Victor, D.G. with A. Chayes and E.B. Skolnikoff. 1993. "Pragmatic Approaches to Regime Building for Complex International Problems." Pp. 453-474 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Vidal, J. 1992. "Development, Poverty, Environment and Aid." Pp. 201-206 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Vig, N.J. and M.E. Kraft (eds.) 1990. *Environmental Policy in the 1990s: Toward a New Agenda*. Washington, DC: Congressional Quarterly Press.
- von Droste, B. and P. Dogsé. 1992. "Sustainable Development: The Role of Investment." Pp. 90-105 in *Population, Technology, and Lifestyle: The Transition to Sustainability*, eds. R. Goodland, H.E. Daly, and S. El Serafy. Washington, DC: Island Press.
- Von Weizsäcker, E.U. and J. Jesinghaus. 1992. *Ecological Tax Reform: A Policy Proposal for Sustainable Development*. London: Zed Books.
- Ward, H. 1993. "Game Theory and the Politics of the Global Commons." *Journal of Conflict Resolution* 37 (June): 203-235.
- Ward, J.R. 1993. "Environmental Strategies for Agricultural Trade." Pp. 247-256 in *Trade and the Environment: Law, Economics, and Policy*, eds. D. Zaelke, P. Orbuch, and R.F. Housman. Washington, DC: Island Press.
- Warren, L.M. 1993. "The Precautionary Principle: Use With Caution." Pp. 97-111 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.

- Weiner, M. 1992. "Security, Stability, and International Migration." *International Security* 17 (3): 91-126.
- Weiskel, T.C. 1993. "UNCED and After: Global Issues, Country Problems, and Regional Solutions in the Asia-Pacific Region." *Journal of Developing Areas* 28 (1): 13-20.
- Weiss, E.B. 1993. "Intergenerational Equity: Toward an International Legal Framework." Pp. 333-353 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Weiss, T.G. and L.S.H. Holgate. 1993. "Opportunities and Obstacles for Collective Security after the Cold War." Pp. 258-283 in *Building a New Global Order: Emerging Trends in International Security*, eds. D. Dewitt, D. Hagland, and J. Kirton. New York: Oxford University Press.
- Werksman, J.D. 1994. "Greening Bretton Woods." Pp. 65-84 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Westcoat, Jr., J.L. 1993. "Resource Management: UNCED, GATT, and Global Change." *Progress in Human Geography* 17 (2): 232-240.
- Western, D. and M.C. Pearl (eds.) 1989. *Conservation for the Twenty-first Century*. New York: Oxford University Press.
- Westing, A.H. (ed.) 1984. *Environment Warfare: A Technical, Legal and Policy Appraisal*. London: Taylor and Francis.
- Westing, A.H. (ed.) 1986. *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action*. Oxford: Oxford University Press.
- Westman, W.W. 1985. *Ecology, Impact Assessment and Environmental Planning*. New York: John Wiley and Sons.
- Wheeler, M. 1994. "Greening the EEC Treaty." Pp. 85-99 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- White, S. 1992. "A New World Strategy for Ecological Balance." Pp. 212-218 in *Change: Threat or Opportunity? Vol. V: Ecological Change: Environment, Development and Poverty Linkages*, ed. Ü. Kirdar. New York: United Nations.
- Williams, M. 1992. "Guidelines to Strengthening the Institutional Response to Major Environmental Issues." *Development* 1992 (2): 22-27.
- Williams, M.J. and P.L. Petesch. 1993. *Sustaining the Earth: Role of Multilateral Development Institutions*. Policy Essay No. 9. Washington, DC: Overseas Development Council.
- Wilson, J.W. 1992. "Using Computer Networks to Improve Prenegotiation Discussions and Alliances for Global Environmental Action." Pp. 61-83 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.

- Wimberley, R.C. 1993. "Policy Perspectives on Social, Agricultural, and Rural Sustainability." *Rural Sociology* 58 (3): 366-386.
- Wisner, B. 1990. "Harvest of Sustainability: Recent Books on Environmental Management." *Journal of Development Studies* 26 (January): 335-341.
- World Bank. 1991. *Urban Policy and Economic Development: An Agenda for the 1990s*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Bank. 1992. *World Development Report 1992: Development and the Environment*. New York: Oxford University Press.
- World Bank. 1994. *Making Development Sustainable: The World Bank Group and the Environment*. Washington, DC: The World Bank.
- World Bank. 1995. *Mainstreaming the Environment: The World Bank Group and the Environment since the Rio Earth Summit*. Washington, DC: The World Bank.
- Yearley, S. 1993. "Standing in for Nature: The Practicalities of Environmental Organizations' Use of Science." Pp. 59-72 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- York, Jr., E.T. 1988. "Improving Sustainability with Agricultural Research." *Environment* 30: 18-20, 36-40.
- Young, D. 1989. "Policy Barriers to Sustainable Agriculture." *American Journal of Alternative Agriculture* 4 (3/4): 135-143.
- Young, J. 1990. *Sustaining the Earth*. Cambridge, MA: Harvard University Press.
- Young, O.R. 1982. *Resource Regimes: Natural Resources and Social Institutions*. Berkeley: University of California Press.
- Young, O.R. 1989. *International Cooperation: Building Regimes for Natural Resources and the Environment*. Ithaca, NY: Cornell University Press.
- Zucchetto, J.J. 1991. "Ecological Economics and Multidisciplinary Education." Pp. 416-427 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

B. Managing Natural Resources

- Abel, N.O.J. and P.M. Blaikie. 1989. "land Degradation, Stocking Rates and Conservation Policies in the Communal Rangelands of Botswana and Zimbabwe." *Land Degradation and Rehabilitation* 1: 101-123.
- Abramovitz, J.N. 1991. *Investing in Biological Diversity: U.S. Research and Conservation Efforts in Developing Countries*. Washington, DC: World Resources Institute.
- Adhikari, J. 1990. "Is Community Forestry a New Concept? An Analysis of the Past and Present Policies Affecting Forest Management in Nepal." *Society and Natural Resources* 3 (July-September): 257-265.
- Ahlbäck, A.J. 1995. "Mobilizing Rural People in Tanzania to Tree Planting: Why and How?" *Ambio* 24 (5): 304-310.
- Ahmed, K. 1994. *Renewable Energy Frontiers: A Review of the Status and Costs of Selected Technologies*. World Bank Technical Paper No. 240. Washington, DC: The World Bank.
- Alcorn, J.B. 1989. "An Economic Analysis of Huastec Mayan Forest Management." Pp. 182-206 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Alegretti, M.H. 1990. "Extractive Reserves: An Alternative for Reconciling Development and Environmental Conservation in Amazonia." Pp. 252-264 in *Alternatives to Deforestation*, ed. A. Anderson. New York: Columbia University Press.
- Alpert, S.B. 1991. "Clean Coal Technology and Advanced Coal-Based Power Plants." *Annual Review of Energy and the Environment* 16: 1-23.
- Anderson, A.B. (ed.) 1990. *Alternatives to Deforestation: Steps Toward Sustainable Use of the Amazon Rain Forest*. New York: Columbia University Press.
- Anderson, A.B. and M.A.G. Jardim. 1989. "Costs and Benefits of Floodplain Forest Management by Rural Inhabitants in the Amazon Estuary: A Case Study of Acai Palm Production." Pp. 14-129 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Anderson, D. 1986. *The Economics of Afforestation: A Case Study in Africa*. Baltimore: The Johns Hopkins University Press.
- Anderson, D. 1989. "Economic Aspects of Afforestation and Soil Conservation Projects." Pp. 172-184 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Anderson, D. and R. Grove (eds.) 1987. *Conservation in Africa: People, Policies, and Practice*. Cambridge: Cambridge University Press.

- Anderson, R.S. 1988. *Tropical Forests, The World Bank, and Indigenous Peoples*. Seattle: University of Washington Press.
- Anderson, T.L. 1995. "Water Options for the Blue Planet." Pp. 267-294 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Arias, O. and J.D. Nations. 1992. "A Call for Central American Peace Parks." pp. 43-58 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- Armitage, J. and G. Schramm. 1989. "Managing the Supply of and Demand for Fuelwood in Africa." Pp. 139-171 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Arnold, J.E.M. 1992. "Production of Forest Products in Agricultural and Common Land Systems: Economic and Policy Issues." Pp. 433-453 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Arrhenius, E. 1992. "Population, Development, and Environmental Disruption --- An Issue of Efficient Natural Resource Management." *Ambio* 21 (1): 9-13.
- Ascher, W. and R. Healy. 1990. *Natural Resource Policymaking in Developing Countries: Environment, Economic Growth, and Income Distribution*. Durham, NC: Duke University Press.
- Arya, S.L., Y. Agnihotri, and J.S. Samra. 1994. "Watershed-management: Changes in Animal Population Structure, Income, Cattle Migration, Shiwaliks, India." *Ambio* 23 (7): 446-450.
- Ascher, W. and R. Healy. 1990. *Natural Resource Policymaking in Developing Countries: Environment, Economic Growth, and Income Distribution*. Durham, NC: Duke University Press.
- Avery, D. 1995. "Saving the Planet with Pesticides: Increasing Food Supplies While Preserving the Earth's Biodiversity." Pp. 49-82 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Ayibotele, N.B. and M. Falkenmark. 1992. "Freshwater Resources." Pp. 187-203 in *An Agenda of Science for Environment and Development into the 21st Century*, eds. J.C.I. Dooge, G.T. Goodman, J.W.M. la Rivière, J. Marton-Lefèvre, T. O'Riordan, and F. Praderie. Cambridge: Cambridge University Press
- Bahuruna, V.K., V. Luthra, and B.M.S. Rathor. 1994. "Collective Forest Management in India." *Ambio* 23 (4/5): 269-273.
- Baldwin, S.F., S. Burke, J. Dunkerly, and P. Komor. 1992. "Energy Technologies for Developing Countries: U.S. Policies and Programs for Trade and Investment." *Annual Review of Energy and the Environment* 17: 327-358.
- Baños Ramírez, O. 1994. "Mexico: The New Agrarian Reform." *Hemisphere* 6 (1): 42-43.

- Barbier, E. 1991a. "Environmental Degradation in the Third World." Pp. 75-108 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Barbier, E. 1991b. "Tropical Deforestation." Pp. 138-166 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Barbier, E., J. Bishop, B. Aylward, and J. Burgess. 1992. "Economic Policy and Sustainable Natural Resource Management." Pp. 65-90 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Barborak, J.R. and G.C. Green. 1987. "Implementing the World Conservation Strategy: Success Stories from Central America and Colombia." Pp. 139-149 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Basnet, K. 1992. "Conservation Practices in Nepal: Past and Present." *Ambio* 21 (6): 390-393.
- Bayley, P.B. 1995. "Sustainability in Tropical Inland Fisheries: The Manager's Dilemma and a Proposed Solution." Pp. 321-327 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Beinhart, W. 1984. "Soil Erosion, Conservation, and Ideas about Development in Southern Africa." *Journal of Southern African Studies* 11 (1): 52-83.
- Bennett, J. with S. George. 1987. *The Hunger Machine*. Cambridge: Polity Press.
- Berkhout, F. 1994. "Nuclear Power: An Industrial Ecology That Failed." Pp. 319-327 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Bernstein, J.D. 1994. *Land Use Considerations in Urban Environmental Management*. UMP Series 12. Washington, DC: The World Bank.
- Beveridge, M.C.M., L.G. Ross, and L.A. Kelly. 1994. "Aquaculture and Biodiversity." *Ambio* 23 (8): 497-502.
- Binswanger, H.P. 1991. "Brazilian Policies that Encourage Deforestation in the Amazon." *World Development* 19 (July): 821-829.
- Bishop, R.C. 1993. "Efficiency, Sustainability, and Biodiversity." *Ambio* 22 (2/3): 69-73.
- Blaikie, P. and H. Brookfield. 1987a. "Decision-Making in Land Management." Pp. 64-83 in *Land Degradation and Society*, by P. Blaikie, H. Brookfield, et al. London: Methuen.
- Blaikie, P. and H. Brookfield. 1987b. "From Forest and Grass into Cropland." Pp. 157-164 in *Land Degradation and Society*, by P. Blaikie, H. Brookfield, et al. London: Methuen.

- Boado, E.L. 1988. "Incentive Policies and Forest Use in the Philippines." Pp. 165-203 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Bowonder, B., S.S.R. Prasad, and N.V.M. Unni. 1988. "Dynamics of Fuelwood Prices in India: Policy Implications." *World Development* 16 (October): 1213-1229.
- Bradley, P.N. and K. McNamara (eds.). 1993. *Living with Trees: Policies for Forest Management in Zimbabwe*. World Bank Technical Paper No. 210. Washington, DC: The World Bank.
- Bradshaw, A.D. and M.J. Chadwick. 1980. *The Restoration of Land: The Ecology and Reclamation of Derelict and Degraded Land*. Oxford: Basil Blackwell.
- Brady, N. 1989. *Making Tropical Agriculture Sustainable: The CIAT Experience*. Washington, DC: World Resources Institute.
- Bromley, D.W. 1989. "Property Relations and Economic Development: The Other Land Reform." *World Development* 17 (6): 867-877.
- Brooks, K., H. Gregersen, P. Ffolliott, and K.G. Tejwani. 1992. "Watershed Management: A Key to Sustainability." Pp. 455-487 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Browder, J.O. 1988. "Public Policy and Deforestation in the Brazilian Amazon." Pp. 247-297 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Browder, J.O. (ed.) 1989. *Fragile Lands in Latin America: Strategies for Sustainable Development*. Boulder, CO: Westview Press.
- Browman, D.L. (ed.) 1987. *Arid Land Use Strategies and Risk Management in the Andes: A Regional Anthropological Perspective*. Boulder, CO: Westview Press.
- Brown, L.R. 1979. *Resource Trends and Population Policy: A Time for Reassessment*. Worldwatch Paper No. 21. Washington, DC: Worldwatch Institute.
- Brown, L.R. 1984. "Conserving Soils." Pp. 53-73 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1985. "Maintaining World Fisheries." Pp. 73-96 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. 1990. "Feeding the World in the Nineties." Pp. 59-78 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R., C. Flavin, and C. Norman. 1979. *The Future of the Automobile in an Oil Short World*. Worldwatch Paper No. 32. Washington, DC: Worldwatch Institute.

- Bruenig, E.F. 1993. "Integrated and Multi-Sectoral Approaches to Achieve Sustainability of Ecosystem Development: The Sarawak Forestry Case." *Global Ecology and Biogeography Letters* 3 (4-6): 253-266.
- Brussard, P.F. 1991. "The Role of Ecology in Biological Conservation." *Ecological Applications* 1 (1): 6-12.
- Budowski, G. 1982. "Socio-Economic Effects of Forest Management on the Lives of People Living in an Area: The Case of Central America and Some Caribbean Countries." Pp. 87-102 in *Socio-Economic Effects and Constraints in Tropical Forest Management*, ed. E.G. Hallworth. New York: John Wiley and Sons.
- Burnett, G.W. and H.B. Stillwell. 1990. "National Park and Equivalent Reservation Creation in French and British Africa." *Society and Natural Resources* 3 (July- September): 29-241.
- Cáceras, V.L., D.E. Gruttner, and N.R. Contreras. 1992. "Water Recycling in And Regions: Chilean Case." *Ambio* 21 (2): 138-144.
- Carrasco, D.A. 1993. "Constraints to Sustainable Soil and Water Conservation: A Dominican Republic Example." *Ambio* 22 (6): 347-350.
- Castañeda, J. 1992. "Union of Forest Ejidos and Communities in Oaxaca." Pp. 333-344 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Cernea, M. 1988. "Alternative Social Forestry Development Strategies." Pp. 159-190 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.
- Cernea, M. 1992. "A Sociological Framework: Policy, Environment, and the Social Actors for Tree Planting." Pp. 301-335 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Chan, A.H. 1988. "Adapting Natural Resources Management to Changing Societal Needs Through Evolving Property Rights." *Review of Social Economy* 46 (1): 46-60.
- Chan, G.L. 1993. "Aquaculture: Ecological Engineering." *Ambio* 22 (7): 491-494.
- Chandler, P. 1994. "Adaptive Ecology of Traditionally Derived Agroforestry in China." *Human Ecology* 22 (4): 415-442.
- Chandler, W.U. 1983. *Materials Recycling: The Virtue of Necessity*. Worldwatch Paper No. 56. Washington, DC: Worldwatch Institute.
- Chandler, W.U. 1985a. *Energy Productivity: Key to Environmental Protection and Economic Progress*. Worldwatch Paper No. 63. Washington, DC: Worldwatch Institute.
- Chandler, W.U. 1985b. "Increasing Energy Efficiency." Pp. 147-171 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.

- Charles, A.T. 1994. "Towards Sustainability: The Fishery Experience." *Ecological Economics* 11 (3): 201-211.
- Chen Chunhuai. 1994. "Major Characteristics and Problems of the South-to-North Water-Transfer Project in China." *Chinese Environment and Development* 5 (Summer): 20-41.
- Chen Xiande. 1994. "Water Transfer Along the Western Route." *Chinese Environment and Development* 5 (Summer): 75-85.
- Child, G.F.T. and R.A. Heath. 1990. "Underselling National Parks in Zimbabwe: Implications for Rural Sustainability." *Society and Natural Resources* 3 (July-September): 215-227.
- Chokor, B.A. and F.O. Odemerho. 1994. "Land Degradation Assessment by Small-Scale Traditional African Farmers and Implications for Sustainable Conservation Management." *Geoforum* 25 (2): 145-154.
- Clark, C.W. 1990. *Mathematical Bioeconomics: The Optimal Management of Renewable Resources*. New York: John Wiley & Sons.
- Clawson, M. and R.A. Sedjo. 1982. "Forest Policy." Pp. 33-63 in *Managing Renewable Natural Resources in Developing Countries*, ed. C.W. Howe. Boulder, CO: Westview Press.
- Clay, J.W., S. Steingraber, and P. Niggli. 1988. *The Spoils of Famine: Ethiopian Famine Policy and Peasant Agriculture*. Cultural Survival Report 25. Cambridge, MA: Cultural Survival, Inc.
- Coggins, C. 1995. "Biodiversity and Environmental History: Research in the Meihuashan Ecosystem of Fujian Province." *China Exchange News* 23 (Spring/Summer): 23-28.
- Courier, K. (ed.) 1992. *Global Biodiversity Strategy*. Washington, DC: World Resources Institute.
- Cox, S.B. 1992. "Citizen Participation and the Reform of Development Assistance in Central America." Pp. 59-83 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- Crosson, P.R. and N.J. Rosenberg. 1989. "Strategies for Agriculture." *Scientific American* 261 (September): 78-85.
- Cummings, R.G. and H.S. Burness. 1982. "Implementing Planning for Multiple Purpose Water Reclamation Projects in Developing Countries: Some Perspectives from the U.S. Experience." Pp. 130-143 in *Managing Renewable Natural Resources in Developing Countries*, ed. C.W. Howe. Boulder, CO: Westview Press.
- Daily, G.C. 1995. "Restoring Value to the World's Degraded Lands." *Science* 269 (21 July): 350-354.
- Darmstadter, J. 1992. "Energy Transitions." *Resources*, No. 106: 29-32.

- Darmstadter, J. and R.W. Fri. 1992. "Interconnections Between Energy and the Environment: Global Challenges." *Annual Review of Energy and the Environment* 17: 45-76.
- Davis, S.H. and A. Wall. 1994. "Indigenous Land Tenure and Tropical Forest Management in Latin America." *Ambio* 23 (8): 485-490.
- De Boer, A.J. 1990. "Sustainable Approaches to Hillside Agricultural Development." Pp. 135-163 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- de Oliveira, A. 1990. "Energy Diagnosis: Toward a Policy-Oriented Approach for Energy Planning in Developing Countries." *World Development* 18 (4): 529-538.
- Deadman, D. and R.K. Turner. 1988. "Resource Conservation, Sustainability and Technical Change." Pp. 67-101 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Denniston, D. 1995. "Sustaining Mountain People's and Environments." Pp. 38-57 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Desai, A.V. 1992. "Alternative Energy in the Third World: A Reappraisal of Subsidies." *World Development* 20 (7): 959-965.
- Deudney, D. 1981. *Rivers of Energy: Harnessing the Hydropower Potential*. Worldwatch Paper No. 44. Washington, DC: Worldwatch Institute.
- DeWalt, B.R. 1994. "Using Indigenous Knowledge to Improve Agriculture and Natural Resource Management." *Human Organization* 53 (Summer): 123-131.
- Dhar, S.K. 1994. "Rehabilitation of Degraded Tropical Forest Watersheds with People's Participation." *Ambio* 23 (3): 216-221.
- Diaz, C.P. 1982. "Socio-Economic Thrusts in Integrated Forest Management System: The Philippine Case." Pp. 107-122 in *Socio-Economic Effects and Constraints in Tropical Forest Management*, ed. E.G. Hallsworth. New York: John Wiley and Sons.
- Dinar, I. and A. Wolf. 1994. "International Markets for Water and the Potential for Regional Coordination: Economic and Political Perspectives in the Western Middle East." *Economic Development and Cultural Change* 43 (October): 43-66.
- Dixon, J.A. 1989. "Multilevel Resource Analysis and Management: The Case of Watersheds." Pp. 185-200 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Dixon, J.A., D.E. James, and P.B. Sherman. 1989. *The Economics of Dryland Management*. London: Earthscan.

- Dixon, J.A., D.E. James, and P.B. Sherman (eds.). 1990. *Dryland Management: Economic Case Studies*. London: Earthscan.
- Dixon, J.A., L.F. Scura, and T. van't Hof. 1993. "Meeting Ecological and Economic Goals: Marine Parks in the Caribbean." *Ambio* 22 (2/3): 117-125.
- Doebele, W.A. 1987. "Land Policy." Pp. 110-132 in *Shelter, Settlement and Development*, ed. L. Rodwin. Boston: Allen & Unwin.
- Dolman, A.J. (ed.) 1980. *Global Planning and Resource Management*. Oxford: Pergamon.
- Doolittle, W.E. 1989. "Arroyos and the Development of Agriculture in Northern Mexico." Pp. 251-269 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Dore, M.H.I. and J.M. Nogueira. 1994. "The Amazon Rain Forest, Sustainable Development and the Biodiversity Convention: A Political Economy Perspective." *Ambio* 23 (8): 491-496.
- Dorner, P. and M.A. El-Shafie. 1980. "Natural Resources and Development Policies." Pp. 455-485 in *Resources and Development: Natural Resource Policies and Economic Development in an Interdependent World*, eds. P. Dorner and M.A. El-Shafie. Madison: University of Wisconsin Press.
- Dunkerley, H.B. and C. Whitehead. 1983. *Urban Land Policy: Issues and Opportunities*. New York: Oxford University Press.
- Durning, A.T. 1992. *Guardians of the Land: Indigenous Peoples and the Health of the Earth*. Worldwatch Paper No. 112. Washington, DC: Worldwatch Institute.
- Durning, A.T. 1993. *Saving the Forest: What Will It Take?* Worldwatch Paper No. 117. Washington, DC: Worldwatch Institute.
- Durning, A.T. 1994. "Redesigning the Forest Economy." Pp. 22-40 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Durning, A.T. and H.B. Brough. 1992. "Reforming the Livestock Economy." Pp. 66-82 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Eckholm, E. 1979. *Planting for the Future: Forestry for Human Needs*. Worldwatch Paper No. 26. Washington, DC: Worldwatch Institute.
- Eggert, R.G. (ed.) 1994. *Mining and the Environment: International Perspectives on Public Policy*. Washington, DC: Resources for the Future.
- Ehrlich, P.R. and G.C. Daily. 1993. "Population Extinction and Saving Biodiversity." *Ambio* 22 (2/3): 64-68.
- Eisner, T., J. Lubchenco, E.O. Wilson, D.S. Wilcove, and M.J. Bean. 1995. "Building a Scientifically Sound Policy for Protecting Endangered Species." *Science* 269 (1 September): 1231-1232.

- England, R.W. 1994. "Three Reasons for Investing Now in Fossil Fuel Conservation: Technological Lock-in, Institutional Inertia, and Oil Wars." *Journal of Economic Issues* 28 (September): 755-776.
- Erickson, C.L. and K.L. Chandler. 1989. "Raised Fields and Sustainable Agriculture in the Lake Titicaca Basin of Peru." Pp. 230-248 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Ewert, A.W. (ed.). 1996. *Human Dimensions Research in Natural Resource Management*. Boulder, CO: Westview Press.
- Fearnside, P.M. 1986. "Agricultural Plans for Brazil's Grande Carajás Program: Lost Opportunity for Sustainable Development?" *World Development* 14 (3): 385-409.
- Fesharaki, F. and Wu Kang. 1992. "Energy Policies in Asian-Pacific Developing Economies." *Asian-Pacific Economic Literature* 6 (November): 11-41.
- Flavin, C. 1980a. *The Future of Synthetic Materials: The Petroleum Connection*. Worldwatch Paper No. 36. Washington, DC: Worldwatch Institute.
- Flavin, C. 1980b. *Energy and Architecture: The Solar and Conservation Potential*. Worldwatch Paper No. 40. Washington, DC: Worldwatch Institute.
- Flavin, C. 1981. *Wind Power: A Turning Point*. Worldwatch Paper No. 45. Washington, DC: Worldwatch Institute.
- Flavin, C. 1986. "Moving Beyond Oil." Pp. 78-97 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. 1987a. "Electrifying the Third World." Pp. 81-100 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. 1987b. "Reassessing Nuclear Power." Pp. 57-80 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. 1988a. *Building on Success: The Age of Energy Efficiency*. Worldwatch Paper No. 82. Washington, DC: Worldwatch Institute.
- Flavin, C. 1988b. "Creating a Sustainable Energy Future." Pp. 22-40 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. 1992. "Building a Bridge to Sustainable Energy." Pp. 27-45 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. 1995. "Harnessing the Sun and the Wind." Pp. 58-75 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. and A. Durning. 1988. "Raising Energy Efficiency." Pp. 41-61 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. and N. Lenssen. 1990. *Beyond the Petroleum Age: Designing a Solar Economy*. Worldwatch Paper No. 100. Washington, DC: Worldwatch Institute.

- Flavin, C. and N. Lenssen. 1991. "Designing a Sustainable Energy System." Pp. 21-38 in *State of the World 1991*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. and N. Lenssen. 1994a. *Powering the Future: Blueprint for a Sustainable Electricity Industry*. Worldwatch Paper No. 119. Washington, DC: Worldwatch Institute.
- Flavin, C. and N. Lenssen. 1994b. "Reshaping the Power Industry." Pp. 61-80 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. and C. Pollock. 1985. "Harnessing Renewable Energy." Pp. 172-199 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Flavin, C. and S. Postel. 1984. "Developing Renewable Energy." Pp. 136-156 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Folke, C., C. Perrings, J.A. McNeely, and N. Myers. 1993. "Biodiversity Conservation with a Human Face." *Ambio* 22 (1): 62-63.
- Fox, J.J. 1991. "Managing the Ecology of Rice Production in Indonesia." Pp. 61-84 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Franklin, J.F. 1995. "Sustainability of Managed Temperate Forest Ecosystems." Pp. 355-385 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by I.J. Payton, *Ibid*, pp. 386-387.]
- Frederickson, H.D., J. Berkoff, and W. Barber. 1993. *Water Resources Management in Asia*. World Bank Technical Paper 212. Washington, DC: The World Bank.
- Freeberne, M. 1993. "The Three Gorges Project and Mass Resettlement." *International Journal of Water Resources Management* 9 (3): 337-352.
- French, D. 1986. "Confronting an Unsolvable Problem: Deforestation in Malawi." *World Development* 14 (April): 531-540.
- Freudenberger, M.S. 1993. "Regenerating the Gum Arabic Economy: Local-Level Resource Management in Northern Senegal." Pp. 52-78 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Gadgil, A. 1994. "Development, Environment, and Energy Efficiency." Pp. 451-466 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Gadgil, M. 1992. "Conserving Biodiversity as if People Matter: A Case Study from India." *Ambio* 21 (3): 266-270.
- Gadgil, M., F. Berkes, and C. Folke. 1993. "Indigenous Knowledge for Biodiversity Conservation." *Ambio* 22 (2/3): 151-156.

- Gammelsrød, T. 1992. "Improving Shrimp Production by Zambezi River Regulation." *Ambio* 21 (2): 145-147.
- Geller, H. and S. Nadel. 1994. "Market Transformation Strategies to Promote End-Use Efficiencies." *Annual Review of Energy and the Environment* 19: 301-346.
- Ghatak, S. 1988. "Towards a Second Green Revolution in the Tropics: From Chemicals to New Biological Techniques for Sustained Economic Development." Pp. 145-169 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Gibbons, J.H., P.D. Blair, and H.L. Gwin. 1989. "Strategic Energy Use." *Scientific American* 261 (September): 86-93.
- Gillis, M. 1988a. "Indonesia: Public Policies, Resource Management, and the Tropical Forest." Pp. 43-113 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Gillis, M. 1988b. "Malaysia: Public Policies and the Tropical Forest." Pp. 115-164 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Gillis, M. 1988c. "West Africa: Resource Management Policies and the Tropical Forest." Pp. 299-351 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Gillis, M. 1992. "Forest Concession Management and Revenue Policies." Pp. 139-175 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Gillis, M. and R. Repetto. 1988. "Conclusion: Findings and Policy Implications." Pp. 385-410 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Githinji, M. and C. Perrings. 1993. "Social and Ecological Sustainability in the Use of Biotic Resources in Sub-Saharan Africa." *Ambio* 22 (2/3): 110-116.
- Godoy, R. 1994. "The Effects of Rural Education on the Use of the Tropical Rainforest by the Sumu Indians of Nicaragua: Possible Pathways, Qualitative Findings, and Policy Options." *Human Organization* 53 (Fall): 233-244.
- Goldemberg, J., T.B. Johansson, A.K.N. Reddy, and R.H. Williams. 1987. *Energy for a Sustainable World*. Washington, DC: World Resources Institute.
- Goldmark, Jr., P.C. and P. LaRocco. 1992. "Global Energy Bargaining." *Annual Review of Energy and the Environment* 17: 77-95.

- Goodland, R.J.A., E.O.A. Asibey, J.C. Post, and M.B. Dyson. 1991. "Tropical Moist Forest Management: The Urgency of Transition to Sustainability." Pp. 486-515 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Gould, M.S. and F.A. Zobrist. 1989. "An Overview of Water Resources Planning in West Africa." *World Development* 17 (11): 1717-1722.
- Gow, D. 1989. "Development of Fragile Lands: An Integrated Approach Reconsidered." Pp. 25-43 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Grainger, A. 1990. *The Threatening Desert: Controlling Desertification*. London: Earthscan.
- Gregersen, H. and S.E. McGaughey. 1987. "Social Forestry and Sustainable Development." Pp. 7-20 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Gregersen, H., S. Draper, and D. Elz (eds.) 1989. *People and Trees: The Role of Social Forestry in Sustainable Development*. Washington, DC: Economic Development Institute of the World Bank.
- Guha, R. 1989. *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*. Berkeley: University of California Press.
- Hackel, J.D. 1993. "Rural Change and Nature Conservation in Africa: A Case Study from Swaziland." *Human Ecology* 21 (3): 295-312.
- Hall, A.L. 1989. *Developing Amazonia: Deforestation and Social Conflict in Brazil's Carajas Programme*. Manchester: Manchester University Press.
- Hallsworth, E.G. (ed.) 1982. *Socio-Economic Effects and Constraints in Tropical Forest Management*. New York: Wiley.
- Hamilton, L.S. 1988. "Forestry and Watershed Management." Pp. 99-131 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.
- Hamilton, L.S. and A.J. Pearce. 1987. "What are the Soil and Water Benefits of Planting Trees in Developing Country Watersheds?" Pp. 39-58 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Hammer, M., A.M. Jansson, and B.-O. Jansson. 1993. "Diversity Change and Sustainability: Implications for Fisheries." *Ambio* 22 (2/3): 97-105.
- Hansen, D.O. and J.M. Erbaugh. 1987. "The Social Dimension of Natural Resource Management." Pp. 81-94 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.

- Hartshorn, G.S. 1989. "Sustained Yield Management of Natural Forests: The Palcazu Production Forest." Pp. 130-138 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Hartshorn, G.S. 1990. "Natural Forest Management by the Yanasha Forestry Cooperative in Peruvian Amazonia." Pp. 128-137 in *Alternatives to Deforestation: Steps Toward Sustainable Use of the Amazon Rain Forest*, ed. A.B. Anderson. New York: Columbia University Press.
- Hasan, S. and G. Mulamootil. 1994. "Natural-Resource Management in Bangladesh." *Ambio* 23 (2/3): 141-145.
- Hayes, D. 1976. *Energy: The Case for Conservation*. Worldwatch Paper No. 4. Washington, DC: Worldwatch Institute.
- Hayes, D. 1978. *The Solar Energy Timetable*. Worldwatch Paper No. 19. Washington, DC: Worldwatch Institute.
- Hecht, S.B. 1989. "Indigenous Soil Management in the Amazon Basin: Some Implications for Development." Pp. 166-181 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Hershkovitz, L. 1993. "Political Ecology and Environmental Management in the Loess Plateau, China." *Human Ecology* 21 (4): 327-353.
- Hill, R.D. 1994. "Upland Development Policy in the People's Republic of China." *Land Use Policy* 11 (1): 8-16.
- Hills, P. 1995. "Sustainable Development and Rural Energy Planning." *Asian Journal of Environmental Management* 3 (May): 37-50.
- Hiraoka, M. 1989. "Agricultural Systems on the Floodplains of the Peruvian Amazon." Pp. 75-101 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Hirsch, P. and L. Lohmann. 1989. "Contemporary Politics of Environment in China." *Asian Survey* 29 (April): 439-451.
- Hirst, E. and C. Goldman. 1991. "Creating the Future: Integrated Resource Planning for Utilities." *Annual Review of Energy and the Environment* 16: 91-121.
- Hjorth, P. and Nguyen Thi Dan. 1993. "Environmentally Sound Urban Water Management in Developing Countries: A Case Study of Hanoi." *International Journal of Water Resources Management* 9 (4): 453-464.
- Hodges, C.A. 1995. "Mineral Resources, Environmental Issues, and Land Use." *Science* 268 (2 June): 1305-1312.
- Hohenemser, C., R.L. Groble, and P. Slovic. 1990. "Institutional Aspects of the Future Development of Nuclear Power." *Annual Review of Energy* 15: 173-200.

- Hossain, K. and S.R. Chowdhury (eds.) 1984. *Permanent Sovereignty Over Natural Resources in International Law*. London: Pinter.
- Howe, C.W. 1982. "Socially Efficient Development and Allocation of Water in Developing Countries: Roles for the Public and Private Sectors." Pp. 95-129 in *Managing Renewable Natural Resources in Developing Countries*, ed. C.W. Howe. Boulder, CO: Westview Press.
- Howe, C.W. and J.A. Dixon. 1993. "Inefficiencies in Water Project Design and Operation in the Third World: An Economic Perspective." *Water Resources Research* 29 (7): 189-194.
- Humphries, S. 1993. "The Intensification of Traditional Agriculture Among Yucatec Maya Farmers: Facing Up to the Dilemma of Livelihood Sustainability." *Human Ecology* 21 (1): 87-102.
- Hurrell, A. 1992. "Brazil and the International Politics of Amazonian Deforestation." Pp. 398-429 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Hurst, C. 1990. "Establishing New Markets for Mature Energy Equipment in Developing Countries: Experience with Windmills, Hydro-Powered Mills and Solar Water Heaters (Argentina)." *World Development* 18 (April): 605-615.
- Hyman, E.L. 1984. "Land-Use Planning to Help Sustain Tropical Forest Resources." *World Development* 12 (8): 837-847.
- Hyman, E.L. 1987. "The Strategy of Decentralized Production and Distribution of Improved Charcoal Stoves in Kenya." Pp. 151-157 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Jeffreys, K. 1995. "Rescuing the Oceans." Pp. 295-338 in *The True State of the Planet*, ed. R. Bailey. New York: The Free Press.
- Jhirad, D. 1990. "Power Sector Innovation in Developing Countries: Implementing Multifaceted Solutions." *Annual Review of Energy* 15: 365-398.
- Johnson, W.A. 1978. *Muddling Toward Frugality*. San Francisco: Sierra Club Books.
- Jones, J. 1992. "Environmental Issues and Policies in Costa Rica: Control of Deforestation." *Policy Studies Journal* 20 (4): 679-694.
- Kamienicki, S. and E. Sanasarian. 1990. "Conducting Comparative Research on Environmental Policy." *Natural Resources Journal* 30 (Spring): 321-340.
- Kanowski, P.J. and P.S. Savill, with P.G. Adlard, J. Burfley, J. Evans, J.R. Palmer, and P.J. Wood. 1992. "Plantation Forestry." Pp. 375-401 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.

- Karekezi, S. 1994. "Disseminating Renewable Energy Technologies in Sub-Saharan Africa." *Annual Review of Energy and the Environment* 19: 387-421.
- Kats, G. 1992. "Achieving Sustainability in Energy Use in Developing Countries." Pp. 258-288 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Kemph, G.S. and A. Hernandez. 1987. "Evolutionary Conservation Project Planning and Implementation: NARMA in the Dominican Republic." Pp. 113-128 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Kent, G. 1979. "Global Fisheries Management." Pp. 232-248 in *The Global Predicament: Ecological Perspectives on World Order*, eds. D.W. Orr and M.S. Soroos. Chapel Hill, NC: University of North Carolina Press.
- Kooi, C.F. 1987. "Renewable Energy Projects in Developing Countries: Contributing to Success and Failure." Pp. 59-65 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Korten, F.F. 1994. "Questioning the Call for Environmental Loans: A Critical Examination of Forestry Lending in the Philippines." *World Development* 22 (7): 971-981.
- Kosmo, M. 1987. *Money to Burn? The High Cost of Energy Subsidies*. Washington, DC: World Resources Institute.
- Kox, H.L.M. 1991. "Integration of Environmental Externalities in International Commodity Agreements." *World Development* 19 (August): 933-943.
- Kozloff, K. and O. Shobowale. 1994. *Rethinking Development Assistance for Renewable Energy*. Washington, DC: World Resources Institute.
- Knight, R.L. 1995. "Sustainable Management of Temperate Wildlife: A Conceptual Model." Pp. 389-400 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Larson, B.A. 1994. "Changing the Economics of Environmental Degradation in Madagascar: Lessons from the National Environmental Action Plan Process." *World Development* 22 (May): 671-689.
- Lawrey, S.W. 1990. "Toward Common Property Natural Resources in Sub-Saharan Africa." *Natural Resources Journal* 30 (Spring): 403-422.
- Ledec, G. and R. Goodland (eds.) 1988. *Wildlands: Their Protection and Management in Economic Development*. Washington, DC: The World Bank.
- Lee, T.R. 1990. *Water Resources and Management in Latin America and the Caribbean*. Boulder, CO: Westview Press.
- Lenssen, N. and D.M. Roodman. 1995. "Making Better Buildings." Pp. 95-112 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.

- Li Jinchang, Kong Fanwen, He Naihui, and L. Ross. 1988. "Price and Policy: The Keys to Revamping China's Forestry Resources." Pp. 205-245 in *Public Policies and the Misuse of Forest Resources*, eds. R. Repetto and M. Gillis. Cambridge: Cambridge University Press.
- Liegerot, F. 1990. "Recycling." Pp. 284-291 in *Natural Resources for the 21st Century*, eds. R.N. Sampson and D. Hair. Washington, DC: Island Press.
- Little, P.D. and D. Brokensha. 1987. "Local Institutions, Tenure, and Resource Management in East Africa." Pp. 193-209 in *Conservation in Africa: People, Policies, and Practice*, eds. D. Anderson and R. Grove. New York: Cambridge University Press.
- Liu Changming and Shen Dajun. 1994. "The Most Vital Strategy: An Overview of Areal Reallocation of China's Water Resources." *Chinese Environment and Development* 5 (Summer): 3-19.
- Liu Changming and Tan Kok-Chiang (eds.). 1994. "Nanshui Beidiao: The South-to-North Water-Transfer Project." *Chinese Environment and Development* 5 (summer).
- Liu Changming and You Maozheng. 1994. "The South-to-North Water-Transfer Project and Sustainable Agricultural Development on the North China Plain." *Chinese Environment and Development* 5 (Summer): 86-95.
- Lopez, M.E. 1987. "The Politics of Lands at Risk in a Philippines Frontier." Pp. 230-267 in *Lands at Risk in the Third World: Local-Level Perspectives*, eds. P.D. Little and M.M. Horowitz. Boulder, CO: Westview Press.
- Lowe, P., G. Cox, M. MacEwen, T. O'Riordan, and M. Winter. 1986. *Countryside Conflicts: The Politics of Farming, Forestry and Conservation*. Aldershot: Gower Publishing.
- Lutz, E., S. Pagiola, and C. Reiche. 1994. *Economic and Institutional Analyses of Soil Conservation Projects in Central America and the Caribbean*. World Bank Environment Paper 8. Washington, DC: The World Bank.
- McCaffrey, S.C. 1993. "Water, Politics, and International Law." Pp. 92-104 in *Water in Crisis: A Guide to the World's Fresh Water Resources*, ed. P.H. Gleick. New York: Oxford University Press.
- McManus, J.W. 1994. "The Spratley Islands: A Marine Park?" *Ambio* 23 (3): 181-186.
- McNeely, J.A. 1989. "How to Pay for Conserving Biological Diversity." *Ambio* 18 (6): 303-318.
- McNeely, J.A. 1993. "Economic Incentives for Conserving Biodiversity: Lessons from Africa." *Ambio* 22 (2/3): 144-150.
- Meier, P. 1990. "Power Sector Innovation in Developing Countries: Implementing Investment Planning Under Capital and Environmental Constraints." *Annual Review of Energy* 15: 277-306.

- Mercer, D.E. and J. Soussan. 1992. "Fuelwood Problems and Solutions." Pp. 177-213 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Mgeni, A.S.M. 1992. "Farm and Community Forestry (Village Afforestation) Program in Tanzania: Can it Go Beyond Lip Service?" *Ambio* 21 (6): 426-430.
- Miranda, M.L., O.M. Corrales, M. Regan, and W. Ascher. 1992. "Forestry Institutions." Pp. 269-299 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Moran, K. 1992. "Debt-for-Nature Swaps: a Response to Debt and Deforestation in Developing Countries?" Pp. 305-316 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Morgan, W.B. and J.A. Solarz. 1994. "Agricultural Crisis in Sub-Saharan Africa: Development Constraints and Policy Problems." *Geographical Journal* 160 (March): 74-86.
- Muul, I. 1995. "Advancing Research and Conservation: A Sustainable Development Project in China." *China Exchange News* 23 (Spring/Summer): 11-15.
- Munasinghe, M. 1991. "Groundwater Resource Management and Environmental Protection." *Natural Resources Forum* 15 (4): 302-312.
- Munasinghe, M. 1992. "Biodiversity Protection Policy: Environmental Valuation and Distribution Issues." *Ambio* 21 (3): 227-236.
- Myers, N. 1992. "The Anatomy of International Action: The Case of Tropical Deforestation." Pp. 430-454 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Myers, N. 1993. "Biodiversity and the Precautionary Principle." *Ambio* 22 (2/3): 74-79.
- Myers, N. 1995. "The World's Forests: Need for a Policy Appraisal." *Science* 268 (12 May): 823-824.
- Naff, T. and R. Matson (eds.). 1984. *Water in the Middle East: Conflict or Cooperation*. Boulder, CO: Westview Press.
- Nair, P.K.R. 1992. "Agroforestry Systems Design: An Ecozone Approach." Pp. 403-432 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Nations, J.D. and D.I. Komer. 1983. "Central America's Tropical Forests: Positive Steps for Survival." *Ambio* 12 (5): 232-238.

- Nelson, L.D. and J.A. Honnold. 1976. "Planning for Resource Scarcity: A Critique of Prevalent Proposals." *Social Science Quarterly* 57 (September): 339-349.
- Newcomb, K.J. 1989. "An Economic Justification for Rural Afforestation: The Case of Ethiopia." Pp. 117-138 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Njiti, C.F. and D.M. Sharpe. 1994. "A Goal-Programming Approach to the Management of Competition and Conflict among Land Uses in the Tropics: The Cameroon Example." *Ambio* 23 (2/3): 112-119.
- Norgaard, R.B. 1987. "The Economics of Biological Diversity: Apologetics or Theory?" Pp. 95-109 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Norton, B.G. and R.E. Ulanowicz. 1992. "Scale and Biodiversity Policy: A Hierarchical Approach." *Ambio* 21 (3): 244-249.
- Nugent, S. 1991. "The Limitations of Environmental 'Management': Forest Utilization in the Lower Amazon." Pp. 141-154 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- Oaxaca 67. 1992. "The Oaxaca Recommendations." Pp. 367-372 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Obdrzalek, M. 1992. "Tropical Deforestation and International Environmental Negotiation: An Illustration of the North-South Confrontation." Pp. 103-124 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Office of Technology Assessment (OTA).1992. *Fueling Development: Energy Technologies for Developing Countries*. Washington, DC: U.S. Congress.
- Padoch, C. and W. de Jong. 1989. "Production and Profit in Agroforestry: An Example from the Peruvian Amazon." Pp. 102-113 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Palmer, J. and T.J. Synnott. 1992. "The Management of Natural Forests." Pp. 337-373 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Pan Jiahua. 1994. "A Synthetic Analysis of Market Efficiency and Constant Resource Stock for Sustainability and its Policy Implications." *Ecological Economics* 11 (3): 187-199.

- Pandey, D.K. and P. Soni. 1994. "Distillery Effluents --- A Potential Resource for Irrigating Forest Seed Beds." *Ambio* 23 (4/5): 267-268.
- Parham, W. 1995. "Improving Degraded Lands: Promising Experiences from South China." *China Exchange News* 23 (Spring/Summer): 16-17.
- Pearce, D. 1988. "The Sustainable Use of Natural Resources in Developing Countries." Pp. 102-117 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Pearce, D. 1991. "An Economic Approach to Saving the Tropical Forests." Pp. 239-262 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Pearce, D. and A. Markandya. 1989. "Marginal Opportunity Cost as a Planning Concept in Natural Resource Management." Pp. 39-55 in *Environmental Management and Economic Development*, eds. G. Schramm and J.J. Warford. Baltimore: The Johns Hopkins University Press.
- Pearce, D.W. and J.J. Warford. 1993. *World Without End: Economics, Environment, and Sustainable Development*. New York: Oxford University Press.
- Peasant Solidarity Group of Quiatoni and E.A. Martinez. 1992. "Integrated Resource Management: A Zapotec Community's Approach." Pp. 345-352 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Peluso, N.L. 1992. *Rich Forests, Poor People: Resource Control and Resistance in Java*. Berkeley: University of California Press.
- Peluso, N.L. 1993a. "Coercing Conservation? --- The Politics of State Resource Control." *Global Environmental Change* 3 (2): 199-217.
- Peluso, N.L. 1993b. "Traditions of Forest Control in Java: Implications for Social Forestry and Sustainability." *Global Ecology and Biogeography Letters* 3 (4-6): 138-157.
- Peluso, N.L. and M. Poffenberger. 1989. "Social Forestry in Java: Re-Orienting Management Systems." *Human Organization* 48 (Winter): 333-343.
- Perlack, R.D., M. Russell, and Z. Shen. 1991. "Energy and Environmental Policy in China." *Annual Review of Energy and the Environment* 16: 205-233.
- Pimentel, D., M. Herdendorf, S. Eisenfeld, L. Olander, M. Carroquino, C. Corson, J. McDade, Y. Chung, W. Cannon, J. Roberts, L. Bluman, and J. Gregg. 1994. "Achieving a Secure Energy Future: Environmental and Economic Issues." *Ecological Economics* 9 (April): 201-219.
- Pindyck, R.S. 1978. "The Optimal Exploration and Production of Nonrenewable Resources." *Journal of Political Economy* 86 (5): 841-861.
- Plucknett, D.L. and D.L. Winkelmann. 1995. "Technology for Sustainable Agriculture." *Scientific American* 273 (September): 148-152.

- Poffenberger, M. (ed.) 1990. *Keepers of the Forest: Land Management Alternatives for Southeast Asia*. West Hartford, CT: Kumarian Press.
- Postel, S. 1984a. "Protecting Forests." Pp. 74-94 in *State of the World 1984*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1984b. *Water: Rethinking Management in an Age of Scarcity*. Worldwatch Paper No. 62. Washington, DC: Worldwatch Institute.
- Postel, S. 1985a. *Conserving Water: The Untapped Alternative*. Worldwatch Paper No. 67. Washington, DC: Worldwatch Institute.
- Postel, S. 1985b. "Maintaining Freshwater Supplies." Pp. 42-72 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1985c. "Protecting Forests from Air Pollution and Acid Rain." Pp. 97-123 in *State of the World 1985*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1986. "Increasing Water Efficiency." Pp. 40-61 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1989. "Halting Land Degradation." Pp. 21-40 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1990. "Saving Water for Agriculture." Pp. 39-58 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1992. *The Last Oasis: Facing Water Scarcity*. London: Earthscan Publications.
- Postel, S. and L. Heise. 1988. "Reforestation of the Earth." Pp. 83-100 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. and J.C. Ryan. 1991. "Reforming Forests." Pp. 74-92 in *State of the World 1991* by L.R. Brown et al. New York: W.W. Norton.
- Pretty, J., I. Guijt, I. Scoones, and J. Thompson. 1992. "Regenerating Agriculture: The Agroecology of Low-External Input and Community-Based Development." Pp. 91-123 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Proctor, J. 1984. "Tropical Forest Conservation." *Progress in Physical Geography* 8 (3): 433-449.
- Provencher, B. and O. Burt. 1993. "The Externalities Associated with the Common Property Exploitation of Groundwater." *Journal of Environmental Economics and Management* 24 (March): 139-158.
- Pryde, P.R. (ed.). 1995. *Environmental Resources and Constraints in the Former Soviet Republics*. Boulder, CO: Westview Press.
- Pulliam, H.R. 1995. "Managing Landscapes for Sustainable Biodiversity." Pp. 89-102 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.

- Qing Dai (ed.). 1994. *Yangtze! Yangtze! Debate Over the Three Gorges Project*. London: Earthscan.
- Qu Geping. 1991. *Environmental Management in China*. Beijing: China Environmental Science Press.
- Rajagukguk, E. 1994. "Law, Land, and the Natural Environment in the Kedungombo Greenbelt Area at the Central Javanese Village of Giliredjo." *Law and Society Review* 28 (3): 623-629.
- Ramberg, L. 1992. "Wildlife Conservation or Utilization: New Approaches in Africa." *Ambio* 21 (6): 438-439.
- Ravindranath, N.H. and D.O. Hall. 1994. "Indian Forest Conservation and Tropical Deforestation." *Ambio* 23 (8): 521-523.
- Reardon, C. 1992. "The International Joint Commission: A Possible Model for International Resource Management." Pp. 125-142 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Redford, K.H. and J.G. Robinson. 1995. "Sustainability of Wildlife and Natural Areas." Pp. 401-406 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank.
- Reiche, C. 1989. "Socioeconomic Analysis of Agroforestry Systems Applied on Demonstration Farms in Central America." Pp. 280-286 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Reid, W.V. and K.R. Miller. 1989. *Keeping Options Alive: The Scientific Basis for Conserving Biodiversity*. Washington, DC: World Resources Institute.
- Remigo, A.A. 1993. "Philippine Forest Resource Policy in the Marcos and Aquino Governments: A Comparative Assessment." *Global Ecology and Biogeography Letters* 3 (4-6): 192-212.
- Repetto, R. 1986. *World Enough and Time: Successful Strategies for Resource Management*. New Haven, CT: Yale University Press.
- Repetto, R. 1987. "Creating Incentives for Sustainable Forest Development." *Ambio* 17 (1): 49-55.
- Repetto, R. 1990. "Incentives for Sustainable Forest Management." Pp. 239-255 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Renner, M. 1991. "Assessing the Military's War on the Environment." Pp. 132-152 in *State of the World 1991*, by L.R. Brown et al. New York: W.W. Norton.
- Ribot, J.C. 1995. "From Exclusion to Participation: Turning Senegal's Forestry Policy Around." *World Development* 23 (9): 1587-1599.

- Richards, P. 1993. "Natural Symbols and Natural History: Chimpanzees, Elephants and Experiments in Mende Thought." Pp. 144-159 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Richley, J.E., E. Salati, R.L. Victoria, and L.A. Martinelli. 1995. "Tropical Water Resource Management: The Biophysical Basis." Pp. 407-428 in *Defining and Measuring Sustainability: The Biogeophysical Foundations*, eds. M. Munasinghe and W. Shearer. Washington, DC: The World Bank. [Also see "Comments" by J.G. Tundisi in *Ibid*, pp. 429-430.]
- Rodrigues, O.A. 1992. "A Rubber Tapper Speaks Out." Pp. 361-364 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Rojas, M. and C. Thomas. 1992. "The Convention on Biological Diversity: Negotiating a Global Regime." Pp. 143-162 in *International Environmental Treaty Making*, eds. L.E. Susskind, E.J. Dolin, and J.W. Breslin. Cambridge, MA: Program on Negotiation Books, Harvard Law School.
- Rose, A., T. Torries, and W. Labys. 1991. "Clean Coal Technologies and Future Prospects for Coal." *Annual Review of Energy and the Environment* 16: 59-90.
- Rose, G. and S. Crane. 1994. "The Evolution of International Whaling." Pp. 159-181 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Rosenberg, D.B. and S.M. Freedman. 1984. "Application of a Model of Ecological Succession to Conservation and Land-use Management." *Environmental Conservation* 11 (4): 323-330.
- Roth, R.E. 1987. "Environmental Management Education: A Model for Sustainable Natural Resource Development." Pp. 129-138 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Ross, L. 1983. "Changes in Water Policy in the People's Republic of China." *Water Resources Bulletin* 19 (1): 69-72.
- Ross, L. 1988. *Environmental Policy in China*. Bloomington: Indiana University Press.
- Roy, S.K. 1987. "Sustainable Development for Natural Resources in the Third World: The Human Equation." Pp. 159-168 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Ruttan, V.W. 1989. "Assistance to Expand Agricultural Production." Pp. 140-169 in *Aid and Development*, eds. A.O. Krueger, C. Michalopoulos, and V.W. Ruttan. Baltimore: The Johns Hopkins University Press.

- Ryan, J.C. 1992a. "Conserving Biological Diversity." Pp. 9-26 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Ryan, J.C. 1992b. *Life Support: Conserving Biological Diversity*. Worldwatch Paper No. 108. Washington, DC: Worldwatch Institute.
- Sampath, R.K. 1992. "Issues in Irrigation Pricing in Developing Countries." *World Development* 20 (7): 967-977.
- Sandford, S. 1983. *Management of Pastoral Development in the Third World*. Chichester, England: John Wiley and Sons.
- Sanger, C. 1986. *Ordering the Oceans: The Making of the Law of the Sea*. London: Zed Books.
- Santos, I.M. and F. Matias. 1992. "Two Peasants Discuss Deforestation." Pp. 353-359 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Saxena, N.C. 1992. "Farm Forestry and Land-use in India: Some Policy Issues." *Ambio* 21 (6): 420-425.
- Schramm, G. 1990. "Electric Power in Developing Countries: Status, Problems, Prospects." *Annual Review of Energy* 15: 307-333.
- Schwartzman, S. 1989. "Extractive Reserves: The Rubber Tappers' Strategy for Sustainable Use of the Amazon Rainforest." Pp. 150-163 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.
- Sharma, N.P. (ed.) 1992. *Managing the World's Forests: Looking for Balance Between Conservation and Development*. Dubuque, IA: Kendall/Hunt Publishing Co.
- Sharma, N.P., C. Binkley, and J. Burley. 1992. "A Global Perspective on Forest Policy." Pp. 515-526 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Sharma, N.P., R. Rowe, M. Grut, R. Kramer, and H. Gregersen. 1992. "Conditions for Sustainable Development." Pp. 489-513 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Shea, C.P. 1988a. *Renewable Energy: Today's Contribution, Tomorrow's Promise*. Worldwatch Paper No. 81. Washington, DC: Worldwatch Institute.
- Shea, C.P. 1988b. "Shifting to Renewable Energy." Pp. 62-82 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Shiva, V. and J. Bandyopadhyay. 1988. "The Chipka Movement." Pp. 224-241 in *Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems*, eds. J. Ives and D.C. Pitt. London: Routledge.

- Shuval, H.J. 1987. "The Development of Water Re-Use in Israel." *Ambio* 16: 186-190.
- Sillitoe, P. 1993. "Local Awareness of the Soil Environment in the Papua New Guinea Highlands." Pp. 160-173 in *Environmentalism: The View from Anthropology*, ed. K. Milton. New York: Routledge.
- Sindair, P.J.N. 1994. "On the Optimal Trend of Fossil Fuel Taxation." *Oxford Economic Papers* 46 (October): 869-877.
- Sirait, M., S. Prasodjo, N. Podger, A. Flavelle, and J. Fox. 1994. "Mapping Customary Land in East Kalimantan, Indonesia: A Tool for Forest Management." *Ambio* 23 (7): 411-417.
- Sizer, N. and R. Rice. 1995. *Backs to the Wall in Suriname: Forest Policy in a Country in Crisis*. Washington, DC: World Resources Institute.
- Slade, M.E. 1982. "Trends in Natural Resource Commodity Prices: An Analysis in the Time Domain." *Journal of Environmental Economics and Management* 9 (2): 122-137.
- Smith, N.J.H., J.T. Williams, and D.L. Plucknett. 1991. "Conserving the Tropical Cornucopia." *Environment* 33 (1): 7-9, 30-32.
- Someshwar, S. 1993. "People versus the State? Social Forestry in Kolar, India." Pp. 182-208 in *In Defense of Livelihood: Comparative Studies on Environmental Action*, eds. J. Friedmann and H. Rangan. West Hartford, CT: Kumarian Press.
- Soulé, M.E. (ed.) 1986. *Conservation Biology: The Science of Scarcity and Diversity*. Sunderland, MA: Sinauer Associates.
- Southgate, D. 1992. "Policies Contributing to Agricultural Colonization of Latin America's Tropical Forests." Pp. 215-235 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Southgate, D. and H.L. Clark. 1993. "Can Conservation Projects Save Biodiversity in South America?" *Ambio* 22 (2/3): 163-166.
- Southgate, D.D. and J.F. Disinger (eds.) 1987. *Sustainable Resource Development in the Third World*. Boulder, CO: Westview Press.
- Southgate, D.D. and F.J. Hitzhusen. 1987. "Economic Analysis of Renewable Resource Conservation in the Third World." Pp. 69-80 in *Sustainable Resource Development in the Third World*, eds. D.D. Southgate and J.F. Disinger. Boulder: Westview Press.
- Stähler, F. 1994. "Biological Diversity: The International Management of Genetic Resources and its Impact on Biotechnology." *Ecological Economics* 11 (3): 227-236.
- Stairs, K. and P. Taylor. 1992. "Non-Governmental Organizations and the Legal Protection of the Oceans: A Case Study." Pp. 110-141 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford

- University Press.
- Sullivan, J.B. 1990. "Private Power in Developing Countries: Early Experience and a Framework for Development." *Annual Review of Energy* 15: 335-363.
- Suryanata, K. 1994. "Fruit Trees Under Contract: Tenure and Land Use in Upland Java, Indonesia." *World Development* 22 (10): 1567-1578.
- Svanquist, N.H. 1992. "The Timber Industry Perspective." Pp. 317-330 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Swanson, T. 1991a. "Conserving Biological Diversity." Pp. 181-208 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Swanson, T. 1991b. The Regulation of Oceanic Resources: An Examination of the International Community's Record in the Regulation of One Global Resource." Pp. 202-238 in *Economic Policy Towards the Environment*, ed. D. Helm. Oxford: Basil Blackwell.
- Swanson, T. 1992. "Economics of a Biodiversity Convention." *Ambio* 21 (3): 250-257.
- Swingland, I.R. 1993. "The Ecology of Stability in Southeast Asia's Forests: Biodiversity and Common Resource Property." *Global Ecology and Biogeography Letters* 3 (4-6): 290-296.
- Thomas-Slayter, B.P. 1992. "Implementing Effective Local Management of Natural Resources: New Roles for NGOs in Africa." *Human Organization* 51 (Summer): 136-143.
- Thrupp, L.A. 1990. "Environmental Initiatives in Costa Rica: A Political Ecology Perspective." *Society and Natural Resources* 3 (July-September): 243-256.
- Tjondronegoro, S.M.P. 1991. "The Utilization and Management of Land Resources in Indonesia, 1970-1990." Pp. 17-35 in *Indonesia: Resources, Ecology, and Environment*, ed. J. Hardjono. New York: Oxford University Press.
- Tobney, J.A. 1993. "Toward a Global Effort to Protect the Earth's Biological Diversity." *World Development* 21 (12): 1931-1945.
- Toulmin, C., I. Scoones, and J. Bishop. 1992. "The Future of Africa's Drylands: Is Local Resource Management the Answer?" Pp. 225-257 in *Sustainable Development: Redefining Institutions, Policy, and Economics*, ed. J. Holmberg. Washington, DC: Island Press.
- Treacy, J.M. 1989. "Agricultural Terraces in Peru's Colca Valley: Promises and Problems of an Ancient Technology." Pp. 209-229 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder. Boulder, CO: Westview Press.

- Umaña, A. and K. Brandon. 1992. "Inventing Institutions for Conservation: Lessons from Costa Rica." Pp. 85-107 in *Poverty, Natural Resources, and Public Policy in Central America*, ed. S. Annis. New Brunswick, NJ: Transaction Publishers.
- United Nations Educational, Scientific, and Cultural Organization. 1993. *World of Savannas: Economic Driving Forces, Ecological Constraints and Policy Options for Sustainable Land Use*. Paris: UNESCO.
- U.S. Agency for International Development. 1987. *The Environment: Managing Natural Resources for Sustainable Development*. Special Report. Washington, DC: U.S. Agency for International Development.
- Vaishnav, T. 1994. "Increasing Food Production in Sub-Saharan Africa through Farmer-managed Small-scale Irrigation Development." *Ambio* 23 (7): 524-526.
- Veeck, G., Li Zhou, and Gao Ling. 1995. "Terrace Construction and Productivity on Loessal Soils in Zhongyang County, Shanxi Province, PRC." *Annals of the Association of American Geographers* 85 (3): 450-467.
- Vincent, J.R. and C.S. Binkley. 1992. "Forest-Based Industrialization: a Dynamic Perspective." Pp. 93-137 in *Managing the World's Forests: Looking for Balance Between Conservation and Development*, ed. N.P. Sharma. Dubuque, IA: Kendall/Hunt Publishing Co.
- Wadley, H. 1995. "Agroforestry: A Sustainable Solution in Xishuangbanna." *China Exchange News* 23 (Spring/Summer): 8-10.
- Weber, P. 1994a. *Net Loss: Fish, Jobs and the Marine Environment*. Worldwatch Paper No. 120. Washington, DC: Worldwatch Institute.
- Weber, P. 1994b. "Safeguarding the Oceans." Pp. 41-60 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Weber, P. 1995. "Protecting Oceanic Fisheries and Jobs." Pp. 21-37 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Wells, M. 1992. "Biodiversity Conservation, Affluence and Poverty: Mismatched Costs and Benefits and Efforts to Remedy Them." *Ambio* 21 (3): 237-243.
- White, T.A. and C.F. Runge. 1994. "Common Property and Collective Action: Lessons for Cooperative Watershed Management in Haiti." *Economic Development and Cultural Change* 43 (October): 1-41.
- Wilbanks, T.J. 1990. "Implementing Environmentally Sound Power Sector Strategies in Developing Countries." *Annual Review of Energy* 15: 255-276.
- Wilken, G.C. 1987. *Good Farmers: Traditional Agricultural Resource Management in Mexico and Central America*. Berkeley, CA: University of California Press.
- Wilken, G.C. 1989. "Transferring Traditional Technology: A Bottom-Up Approach for Fragile Lands." Pp. 44-57 in *Fragile Lands in Latin America: Strategies for Sustainable Development*, ed. J.O. Browder.

- Boulder, CO: Westview Press.
- Williams, R. 1994. "Roles for Biomass Energy in Sustainable Development." Pp. 199-225 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Wingate, D.B. 1990. "The Restoration of Nonsuch Island as a Living Museum of Bermuda's Precolonial Terrestrial Biome." Pp. 133-150 in *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, ed. G.M. Woodwell. Cambridge: Cambridge University Press.
- Winterbottom, R. and P.T. Hazelwood. 1987. "Agroforestry and Sustainable Development: Making the Connection." *Ambio* 16 (2/3): 100-110.
- Wolf, E.C. 1986a. *Beyond the Green Revolution: New Approaches for Third World Agriculture*. Worldwatch Paper No. 56. Washington, DC: Worldwatch Institute.
- Wolf, E.C. 1986b. "Managing Rangelands." Pp. 62-77 in *State of the World 1986*, by L.R. Brown et al. New York: W.W. Norton.
- Wolf, E.C. 1987a. *On the Brink of Extinction: Conserving the Diversity of Life*. Worldwatch Paper No. 78. Washington, DC: Worldwatch Institute.
- Wolf, E.C. 1987b. "Raising Agricultural Productivity." Pp. 139-156 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Woodgate, G. 1991. "Agroecological Possibilities and Organisational Limits: Some Initial Impressions from a Mexican Case Study." Pp. 155-183 in *Environment and Development in Latin America: The Politics of Sustainability*, eds. D. Goodman and M. Redclift. Manchester: Manchester University Press.
- World Bank. 1991. *The Forest Sector*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Bank. 1993a. *Energy Efficiency and Conservation in the Developing World*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Bank. 1993b. *The World Bank's Role in the Electric Power Sector: Policies for Effective Institutional, Regulatory, and Financial Reform*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Bank. 1993c. *Water Resources Management*. A World Bank Policy Paper. Washington, DC: The World Bank.
- World Bank, World Conservation Union, and Great Barrier Reef Marine Park Authority. 1995. *A Global Representative System of Marine Protected Areas*. 4 Vols. Washington, DC: The World Bank.
- World Conservation Monitoring Centre. 1992. *Global Biodiversity: Status of the Earth's Living Resources*. London: Chapman and Hall.
- Xu Zhifang. 1994. "The Middle Route Proposal for South-to-North Water Transfer." *Chinese Environment and Development* 5 (Summer): 58-74.

- Young, J.E. 1991. "Reducing Waste, Saving Materials." Pp. 39-55 in *State of the World 1991* by L.R. Brown et al. New York: W.W. Norton.
- Young, J.E. and A. Sachs. 1994. *The Next Efficiency Revolution: Creating a Sustainable Materials Economy*. Worldwatch Paper No. 121. Washington, DC: Worldwatch Institute.
- Young, J.E. and A. Sachs. 1995. "Creating a Sustainable Materials Economy." Pp. 76-94 in *State of the World 1995*, by L.R. Brown et al. New York: W.W. Norton.
- Zuo Dakang, Liu Changming, and Xu Yuexian. 1994. "The Natural Environmental Impact of the Proposed Eastern Route of the South-to-North Water-Transfer Project." *Chinese Environment and Development* 5 (Summer): 42-57.

C. Protecting Environmental Quality

- Anderson, D. 1994. "Cost-Effectiveness in Addressing the 'CO₂ Problem' --- With Special Reference to the Global Environment Facility." *Annual Review of Energy and the Environment* 19: 423-455.
- Andrews, C. 1994. "Policies to Encourage Clean Technology." Pp. 405-422 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Appasamy, P. and J. Lundqvist. 1993. "Water Supply and Waste Disposal Strategies for Madras." *Ambio* 22 (7): 442-448.
- Ausubel, J.H. and D.G. Victor. 1992. "Verification of International Environmental Agreements." *Annual Review of Energy and the Environment* 17: 1-43.
- Barbier, E. 1991. "Environmental Degradation in the Third World." Pp. 75-108 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Barrett, S. 1991. "Global Warming: Economics of a Carbon Tax." Pp. 31-52 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Barron, W.E. 1993. "Energy-Related Environmental Controls: Assessing Transport and Industrial Options in Hong Kong." *Energy Policy* 21 (6): 679-690.
- Bartone, C. J. Bernstein, J. Leitmann, and J. Eigen. 1994. *Toward Environmental Strategies for Cities: Policy Considerations for Urban Environmental Management*. UMP Series No. 18. Washington, DC: The World Bank.
- Beckerman, W. 1992. "Global Warming and International Action: An International Perspective." Pp. 253-289 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Bekkering, T.D. 1992. "Using Tropical Forests to Fix Atmospheric Carbon: The Potential in Theory and Practice." *Ambio* 21 (6): 414-419.
- Benedick, R.E. 1991a. *Ozone Diplomacy: New Directions in Safeguarding the Planet*. Cambridge, MA: Harvard University Press.
- Benedick, R.E. 1991b. "Protecting the Ozone Layer: New Directions in Diplomacy." Pp. 112-153 in *Preserving the Global Environment: The Challenge of Shared Leadership*, ed. J.T Mathews. New York: W.W. Norton.
- Bernstein, J.D. 1993. *Alternative Approaches to Pollution Control and Waste Management: Regulatory and Economic Instruments*. UMP Series No. 3. Washington, DC: The World Bank.
- Bertram, G. 1992. "Tradeable Emission Permits and the Control of Greenhouse Gases." *Journal of Development Studies* 28 (April): 423-446.

- Bezdek, R.H., R.M. Wendling, and J.D. Jones. 1989. "The Economic and Employment Effects of Investments in Pollution Abatement and Control Technologies." *Ambio* 18 (5): 274-279.
- Bodansky, D. 1994. "The United Nations Framework Convention on Climate Change." Pp. 210-226 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Boehmer-Christianson, S. 1994a. "Global Climate Protection Policy: The Limits of Scientific Advice: Part 1." *Global Environmental Change* 4 (2): 140-159.
- Boehmer-Christianson, S. 1994b. "Global Climate Protection Policy: The Limits of Scientific Advice: Part 2." *Global Environmental Change* 4 (3): 185-200
- Braungart, M. 1994. "Product Life-Cycle Management to Replace Waste Management." Pp. 335-337 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Brown, L.R., C. Flavin, and S. Postel. 1989. "Outlining a Global Action Plan." Pp. 174-194 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Brown, L.R. and E.C. Wolf. 1988. "Reclaiming the Future." Pp. 170-188 in *State of the World 1988*, by L.R. Brown et al. W.W. Norton.
- Catton, C. 1993. "Great Leap Backward." *New Statesman & Society* 6 (January): 28-30.
- Cavandish, W. and D. Anderson. 1994. "Efficiency and Substitution in Pollution Abatement." *Oxford Economic Papers* 46 (October): 774-799.
- Chan, H.S., K.-K. Wong, and K.C. Cheung. 1995. "The Implementation gap in Environmental Management in China: The Case of Guangzhou, Zhengzhou, and Nanjing." *Public Administration Review* 55 (July/August): 333-340.
- Cornwell, L. and R. Costanza. 1994. "An Experimental Analysis of the Effectiveness of an Environmental Bonding System on Player Behavior in a Simulated Firm." *Ecological Economics* 11 (3): 213-226.
- Cumberland, J.H. 1994. "Ecology, Economic Incentives, and Public Policy in the Design of a Transdisciplinary Pollution Control Instrument." Pp. 265-278 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. and J. van der Straaten. Washington, DC: Island Press.
- d'Arge, R.C. and C.L. Spash. 1991. "Economic Strategies for Mitigating the Impacts of Climate Change on Future Generations." Pp. 367-383 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

- Denniston, D. 1995. *High Priorities: Conserving Mountain Ecosystems and Cultures*. Worldwatch Paper No. 123. Washington, DC: Worldwatch Institute.
- Documents. 1988. "Policy Aspects of the Greenhouse Effect." *Population and Development Review* 14 (September): 527-531.
- Donaldson, D.M. and G.E. Bettridge. 1990. "The Relative Cost Effectiveness of Various Measures to Ameliorate Global Warming." *Energy Policy* 18 (July/August): 563-571.
- Döös, B.R. 1994. "Why is Environmental Protection So Slow?" *Global Environmental Change* 4 (3): 179-184.
- Durning, A.T. and H.B. Brough. 1991. *Taking Stock: Animal Farming and the Environment*. Worldwatch Paper No. 103. Washington, DC: Worldwatch Institute.
- Edmonds, R.L. 1989. "Environmental Change and Management." *Geography* 74 (October): 353-355
- Edmonds, R.L. 1994a. "China's Environment." Pp. 143-170 in *China Briefing, 1994*, ed. W.A. Joseph. Boulder, CO: Westview.
- Edmonds, R.L. 1994b. *Patterns of China's Lost Harmony: A Survey of the Country's Environmental Degradation and Protection*. New York: Routledge.
- Elsom, D. and M. Haigh. 1986. "Progress and Pollution." *The Geographical Magazine* 58 (December): 640-645.
- Epstein, E.J. 1995. "Air Pollution Control in Hong Kong." *Asian Journal of Environmental Management* 3 (May): 61-68.
- Eskeland, G.S. and E. Jimenez. 1991. "Curbing Pollution in Developing Countries." *Finance and Development* 28 (March): 15-18.
- Falkenmark, M. and J. Rockström. 1993. "Curbing Rural Exodus from Tropical Drylands." *Ambio* 22 (7): 427-437.
- Falloux, F. and A. Mukendi (eds.) 1988. *Desertification Control and Renewable Resource Management in the Sahelian and Sudanian Zones of West Africa*. World Bank Technical Paper No. 70. Washington, DC: The World Bank.
- Flavin, C. 1987. *Reassessing Nuclear Power: The Fallout from Chernobyl*. Worldwatch Paper No. 75. Washington, DC: Worldwatch Institute.
- Flavin, C. 1989. *Slowing Global Warming: A Worldwide Strategy*. Worldwatch Paper No. 91. Washington, DC: Worldwatch Institute.
- Flavin, C. 1990. "Slowing Global Warming." Pp. 17-38 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- France, W. and V. Thomas. 1994. "Industrial Ecology in the Manufacturing of Consumer Products." Pp. 339-348 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.

- French, H.F. 1990a. "Clearing the Air." Pp. 98-118 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- French, H.F. 1990b. *Clearing the Air: A Global Agenda*. Worldwatch Paper No. 94. Washington, DC: Worldwatch Institute.
- French, H.F. 1990c. "Communication: A Global Agenda for Clean Air." *Energy Policy* 18 (July/August): 583-585.
- French, H.F. 1992. "Strengthening Global Environmental Governance." Pp. 155-173 in *State of the World 1992*, by L.R. Brown et al. New York: W.W. Norton.
- Fullen, M.A. and D.J. Mitchell. 1994. "Desertification and Reclamation in North-Central China." *Ambio* 23 (2/3): 131-135.
- Girardet, H. 1993. *The Gaia Atlas of Cities: New Directions for Sustainable Urban Living*. London: Gaia Books.
- Girma, M. 1992. "Macropolicy and the Environment: A Framework for Analysis." *World Development* 20 (April): 531-540.
- Glantz, M.H. (ed.). 1988. *Societal Responses to Regional Climatic Change: Forecasting by Analogy*. Boulder, CO: Westview Press.
- Graedel, T., I. Horkeby, and V. Norberg-Bohm. 1994. "Prioritizing Impacts in Industrial Ecology." Pp. 359-370 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Grubb, M. 1990. "The Greenhouse Effect: Negotiating Targets." *International Affairs* 66 (January): 67-90.
- Haas, P.M. 1992a. "Banning Chlorofluorocarbons: Epistemic Community Efforts to Protect Stratospheric Ozone." *International Organization* 46 (Winter): 187-224.
- Haas, P.M. 1992b. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46 (Winter): 1-35.
- Hågvar, S. 1994. "Preserving the Natural Heritage: The Process of Developing Attitudes." *Ambio* 23 (8): 515-518.
- Hardoy, J.E. and D. Satterthwaite. 1981. *Shelter: Need and Response; Housing, Land and Settlement Policies in Seventeen Third World Nations*. Chichester, UK: Wiley.
- Hardoy, J.E. and D. Mitlin, and D. Satterthwaite. 1993. *Environmental Problems in Third World Cities*. London: Earthscan.
- Harriss, R. 1994. "Reducing Urban Sources of Methane: An Experiment in Industrial Ecology." Pp. 173-181 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Hayes, D. 1978. *Repairs, Reuse, Recycling --- First Steps Toward a Sustainable Society*. Worldwatch Paper No. 23. Washington, DC: Worldwatch Institute.

- Holdren, J.P. 1991. "Safety and Environmental Aspects of Fusion Energy." *Annual Review of Energy and the Environment* 17: 235-258.
- Intergovernmental Panel on Climate Change (IPCC). 1990. *Climate Change: The IPCC Scientific Assessment: Final Report of Working Group I*. New York: Cambridge University Press.
- Intergovernmental Panel on Climate Change (IPCC). 1992. *Climate Change 1992: The 1992 Supplementary Report to the IPCC Scientific Assessment*. New York; Cambridge University Press.
- Jacobson, J.L. 1990. "Holding Back the Sea." Pp. 79-97 in *State of the World 1990*, by L.R. Brown et al. New York: W.W. Norton.
- Jodha, N.S. 1982. "The Role of Administration in Desertification: Land Tenure as a Factor in the Historical Ecology of Western Rajasthan." Pp. 333-350 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Jolly, A. 1990. "The Madagascar Challenge: Human Needs and Fragile Ecosystems." Pp. 189-215 in *Environment and the Poor: Development Strategies for a Common Agenda*, by H.J. Leonard and Contributors. U.S.-Third World Policy Perspectives, No. 11. Overseas Development Council. New Brunswick, NJ: Transaction Books.
- Kim, H.H. 1995. "South Korea Strives to Create an Environmental Policy for the 21st Century." *Waste Management & the Environment*. 3 (July): 12-14.
- Kingsley, G.T., B.W. Ferguson, and B.T. Bower with S.R. Dice. 1994. *Managing Urban Environmental Quality in Asia*. World Bank Technical Paper No. 220, Asia Technical Development Series. Washington, DC: The World Bank.
- Kononov, Y. 1994. "Reducing Carbon Dioxide Emissions in Russia." Pp. 183-191 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Kummer, K. 1992. "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention." *International and Comparative Law Quarterly* 41 (July): 530-562.
- Larson, B. and A. Shah. 1994. "Global Tradeable Carbon Permits, Participation Incentives, and Transfers." *Oxford Economic Papers* 46 (October): 841-856.
- Larson, B.A. 1994. "Changing the Economics of Environmental Degradation in Madagascar: Lessons from the National Environmental Action Plan." *World Development* 22 (5): 671-689.
- Larson, B.A. and J.A. Tobney. 1994. "Uncertain Climate Change and the International Policy Response." *Ecological Economics* 11 (1): 77-84.
- Lee, J.K. and G.C. Lim. 1983. "Environmental Policies in Developing Countries: A Case of International Movement of Polluting Industries." *Journal of Development Economics* 13 (August/October): 159-173.

- Ledec, G. 1992. "New Directions for Livestock Policy: an Environmental Perspective." Pp. 27-65 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Lenssen, N. 1991. *Nuclear Waste: The Problem That Won't Go Away*. Worldwatch Paper No. 106. Washington, DC: Worldwatch Institute.
- Lenssen, N. 1992. "Confronting Nuclear Waste." Pp. 46-65 in *State of the World 1992*. New York: W.W. Norton.
- Linn, J.F. 1983. *Cities in the Developing World: Policies for their Equitable and Efficient Growth*. New York: Oxford University Press.
- Lovins, A.B. and L.H. Lovins. 1991. "Least-Cost Climatic Stabilization." *Annual Review of Energy and the Environment* 16: 433-531.
- Lowe, M.D. 1989. *The Bicycle: Vehicle for a Small Planet*. Worldwatch Paper No. 90. Washington, DC: Worldwatch Institute.
- Lowe, M.D. 1990. *Alternatives to the Automobile: Transport for Livable Cities*. Worldwatch Paper No. 98. Washington, DC: Worldwatch Institute.
- Lowe, M.D. 1994a. *Back on Track: The Global Rail Revival*. Worldwatch Paper No. 118. Washington, DC: Worldwatch Institute.
- Lowe, M.D. 1994b. "Reinventing Transport." Pp. 81-98 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Lu Shuping. 1995. "Controlling Water Pollution in Shanghai." *Waste Management and the Environment* 3 (July): 22-24.
- Lundin, C.G. and O. Lindén. 1993. "Coastal Ecosystems: Attempts to Manage a Threatened Resource." *Ambio* 22 (7): 468-473.
- Lyon, R.M. 1989. "Transferable Discharge Permit Systems and Environmental Management in Developing Countries." *World Development* 17 (August): 1299-1312.
- MacDonald, T. 1992. "From Reaction to Planning: An Indigenous Response to Deforestation and Cattle Raising." Pp. 213-234 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Mann, A.S. and R.G. Richels. 1992. *Buying Greenhouse Insurance: The Economic Costs of Carbon Dioxide Emission Limits*. Cambridge, MA: The MIT Press.
- Markandya, A. 1991a. "Economics and the Ozone Layer." Pp. 63-74 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Markandya, A. 1991b. "Global Warming: The Economics of Tradeable Permits." Pp. 53-62 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.

- Martinez-Alier, J. 1994. "Distributional Conflicts and International Environmental Policy on Carbon Dioxide Emissions and Agricultural Biodiversity." Pp. 235-263 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Meier, R.L. and A.S.M. Abdul Quium. 1991. "A Sustainable State for Urban Life in Poor Societies: Bangladesh." *Futures* 23: 128-145.
- Mortimore, M.J. 1989. *Adapting to Drought: Farmers, Famine and Desertification in West Africa*. Cambridge: Cambridge University Press.
- Munasinghe, M. and K. King. 1992. "Accelerating Ozone Layer Protection in Developing Countries." *World Development* 20 (April): 609-618.
- Murphy, S.D. 1994. "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes." *American Journal of International Law* 88 (January): 24-75.
- Murray, J. 1990. "Viewpoint: Can Nuclear Energy Contribute to Slowing Global Warming." *Energy Policy* 18 (July/August): 494-499.
- Myers, N. 1987. *Not Far Afield: U.S. Interests and the Global Environment*. Washington, DC: World Resources Institute.
- Nash, C. and J. Bowers. 1988. "Alternative Approaches to the Valuation of Environmental Resources." Pp. 118-142 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- National Academy of Sciences. 1991a. *Policy Implications of Greenhouse Warming*. (Report of the Adaptation Panel). Washington, DC: National Academy Press.
- National Academy of Sciences. 1991b. *Policy Implications of Greenhouse Warming*. (Report of the Mitigation Panel). Washington, DC: National Academy Press.
- National Academy of Sciences. 1991c. *Policy Implications of Greenhouse Warming*. (Report of the Synthesis Panel). Washington, DC: National Academy Press.
- Nelson, K. 1994. "Finding and Implementing Projects that Reduce Waste." Pp. 371-382 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Niemczynowicz, J. 1993. "New Aspects of Sewerage and Water Technology." *Ambio* 22 (7): 449-455.
- Nientied, P. and J. van der Linden. 1988. "Approaches to Low-Income Housing in the Third World." Pp. 138-156 in *The Urbanization of the Third World*, ed. J. Gugler. New York: Oxford University Press.
- Nordhaus, W.D. 1991a. "The Costs of Slowing Climate Change: A Survey." *Energy Journal* 12 (1): 37-65.

- Nordhaus, W.D. 1991b. "To Slow or Not to Slow: The Economics of the Greenhouse Effect." *Economic Journal* 101: (July): 920-937.
- Nordhaus, W.D. 1994. *Managing the Global Commons: The Economics of Climate Change*. Cambridge, MA: The MIT Press.
- Nyerges, A.E. 1982. "Pastoralists, Flocks, and Vegetation: Processes of Co-Adaptation." Pp. 217-247 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Organization for Economic Cooperation and Development. 1994. *Managing the Environment: The Role of Economic Instruments*. Washington, DC: OECD.
- Organization for Economic Cooperation and Development. 1995. *Motor Vehicle Pollution: Reduction Strategy Beyond 2010*. Washington, DC: OECD.
- Parmentier, R. 1994. "Radioactive Waste Dumping at Sea." Pp. 140-158 in *Greening International Law*, ed. P. Sands. New York: The New Press.
- Paton, B. 1994. "Design for Environment: A Management Perspective." Pp. 349-357 in *Industrial Ecology and Global Change*, eds. R. Socolow, C. Andrews, F. Berkhout, and V. Thomas. Cambridge: Cambridge University Press.
- Patterson, M. and M. Grubb. 1992. "The International Politics of Climate Change." *International Affairs* 68 (2): 293-310.
- Pearce, D.W. and J.J. Warford. 1993. *World Without End: Economics, Environment, and Sustainable Development*. New York: Oxford University Press.
- Pollock, C. 1986. *Decommissioning Nuclear Power's Missing Link*. Worldwatch Paper No. 69. Washington, DC: Worldwatch Institute.
- Postel, S. 1986. *Altering the Earth's Chemistry: Assessing the Risks*. Worldwatch Paper No. 71. Washington, DC: Worldwatch Institute.
- Postel, S. 1987a. *Defusing the Toxics Threat: Controlling Pesticides and Industrial Waste*. Worldwatch Paper No. 79. Washington, DC: Worldwatch Institute.
- Postel, S. 1987b. "Stabilizing Chemical Cycles." Pp. 157-176 in *State of the World 1987*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1988. "Controlling Toxic Chemicals." Pp. 118-136 in *State of the World 1988*, by L.R. Brown et al. New York: W.W. Norton.
- Postel, S. 1989. "Halting Land Degradation." Pp. 41-58 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Poterba, J.M. 1991. "Tax Policy to Combat Global Warming: On Designing a Carbon Tax." Pp. 71-97 in *Global Warming: Economic Policy Responses*, eds. R. Dornbusch and J.M. Poterba. Cambridge, MA: The MIT Press.

- Qiang Binghuan. 1995. "Economic Development and the Environment: China's Pearl River Delta Strives to Accommodate Both." *Waste Management & the Environment* 3 (July): 26-27.
- Qu Geping. 1991. *Environmental Management in China*. Beijing: China Environmental Science Press.
- Rees, J. 1988. "Pollution Control Objectives and the Regulatory Framework." Pp. 170-189 in *Sustainable Environmental Management: Principles and Practice*, ed. R.K. Turner. Boulder, CO: Westview Press.
- Renaud, B. 1981. *National Urbanization Policy in Developing Countries*. New York: Oxford University Press.
- Renner, M. 1988. *Rethinking the Role of the Automobile*. Worldwatch Paper No. 84. Washington, DC: Worldwatch Institute.
- Renner, M. 1989. "Rethinking Transportation." Pp. 97- 112 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Renner, M. 1994. "Cleaning Up After the Arms Race." Pp. 137-155 in *State of the World 1994*, by L.R. Brown et al. New York: W.W. Norton.
- Richardson, E.L. 1992. "Climate Change: Problems of Law-Making." Pp. 166-179 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Richardson, H.W. 1977. *City Size and National Spatial Strategies in Developing Countries*. World Bank Staff Working Paper 252. Washington, DC: The World Bank.
- Rondinelli, D.A. 1983. *Secondary Cities in Developing Countries: Policies for Diffusing Urbanization*. Beverly Hills, CA: Sage Publications.
- Rosenberg, N.J. and M.J. Scott. 1994. "Implications of Policies to Prevent Climate Change for Future Food Security." *Global Environmental Change* 4 (1): 49-62.
- Ross, L. 1983. "Flood Control Policy in China: The Policy Consequences of Natural Disasters." *The Journal of Public Policy* 3 (May): 209-232.
- Ross, L. 1984. "The Implementation of Environmental Policy in China: A Comparative Perspective." *Administration & Society* 15 (February): 489-516.
- Ross, L. 1988. *Environmental Policy in China*. Bloomington: Indiana University Press.
- Ross, L. 1992. "The Politics of Environmental Policy in the People's Republic of China." *Policy Studies Journal* 20 (4): 628-642.
- Rotmans, J., M.G.J. den Eizen, M. Krol, R.J. Swart, and H. van der Woerd. 1992. "Stabilizing Atmospheric Concentrations: Towards International Methane Control." *Ambio* 21 (6): 404-413.

- Rubin, E.S., R.N. Cooper, R.A. Frosch, T.H. Lee, G. Marland, A.H. Rosenfeld, and D.D. Stine. 1992. "Realistic Mitigation Options for Global Warming." *Science* 257 (10 July): 148-149, 261-266.
- Serrão, E.A. and J.M. Toledo. 1992. "Sustaining Pasture-Based Production Systems for the Humid Tropics." Pp. 257-280 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Seymour, R.J. and R.A. Geyer. 1992. "Fates and Effects of Oil Spills." *Annual Review of Energy and the Environment* 17: 261-283.
- Shea, C.P. 1987. *Mining Urban Wastes: The Potential for Recycling*. Worldwatch Paper No. 76. Washington, DC: Worldwatch Institute.
- Shea, C.P. 1988. *Protecting Life on Earth: Steps to Save the Ozone Layer*. Worldwatch Paper No. 87. Washington, DC: Worldwatch Institute.
- Shea, C.P. 1989. "Protecting the Ozone Layer." Pp. 77-96 in *State of the World 1989*, by L.R. Brown et al. New York: W.W. Norton.
- Silk, M.A. 1985. "China's Marine Environmental Protection Law: The Dragon Creeping in Murky Waters." *Review of Socialist Law* 11: 249-273.
- Smil, V. 1993. *China's Environmental Crisis: An Inquiry into the Limits of National Development*. Armonk, NY: M.E. Sharpe.
- Spencer, D.F. 1991. "A Preliminary Assessment of Carbon Dioxide Mitigation Options." *Annual Review of Energy and the Environment* 16: 259-273.
- Stavins, R.N. and B.W. Whitehead. 1992. "Pollution Charges for Environmental Protection: A Policy Link Between Energy and the Environment." *Annual Review of Energy and the Environment* 17: 187-210.
- Stavins, R.N. and B.W. Whitehead. 1993. "Dealing with Pollution: Market-Based Incentives for Environmental Problems." *Environment* 34 (7): 6-11.
- Stone, C.D. 1992. "Beyond Rio" 'Insuring' against Global Warming." *American Journal of International Law* 86 (July): 445-488.
- Strong, M. and E. Arrhenius. 1993. "Closing Linear Flows of Carbon through a Sectoral Society." *Ambio* 22 (7): 414-416.
- Swisher, J. and G. Masters. 1992. "A Mechanism to Reconcile Equity and Efficiency in Global Climate Protection: International Carbon Emission Offsets." *Ambio* 21 (2): 154-159.
- Tadros, H.R. 1982. "The Design of Rural Resettlement in Dry Lands: Lessons from a Programme in Egypt." Pp. 123-136 in *Desertification and Development: Dryland Ecology in Social Perspective*, eds. B. Spooner and H.S. Mann. New York: Academic Press.
- Trujillo-Arriaga, J. 1992. "Integrated Production Systems." Pp. 293-301 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.

- Tuomioja, E. 1994. "Stopping the Greenhouse Effect --- Regulation, Taxes, or Quotas?" *Development* 1994 3: 39-41.
- Ulph, A. and D. Ulph. 1994. "The Optimal Time Path of a Carbon Tax." *Oxford Economic Papers* 46 (October): 857-868.
- United Nations. 1993. *International Environmental Law: Emerging Trends and Implications for Transnational Corporations*. New York: United Nations.
- Venator, C.R., J. Glaeser, and R. Soto. 1992. "A Silvopastoral Strategy." Pp. 281-292 in *Development or Destruction: The Conversion of Tropical Forest to Pasture in Latin America*, eds. T.E. Downing, S.B. Hecht, H.A. Pearson, and C. Garcia-Downing. Boulder, CO: Westview Press.
- Walsh, M. 1990. "Global Trends in Motor Vehicle Use and Emissions." *Annual Review of Energy* 15: 217-243.
- Warrick, R. and W. Riebsame. 1981. "Societal Response to CO₂-Induced Climate Change: Opportunities for Research." *Climatic Change* 3 (4): 387-428.
- Weale, A. 1992. *The New Politics of Pollution*. Manchester: Manchester University Press.
- Weber, P. 1993. *Abandoned Seas: Reversing the Decline of the Oceans*. Worldwatch Paper No. 116. Washington, DC: Worldwatch Institute.
- Weir, D. 1987. *The Bhopal Syndrome*. London: Earthscan.
- Wirth, D.A. and D.A. Lanshof. 1990. "Beyond Vienna and Montreal --- Multilateral Agreements on Greenhouse Gases." *Ambio* 19: 305-310.
- Wirtschaftler, R.M. and E. Shih. 1990. "Decentralization of China's Electricity Sector: Is Small Beautiful?" *World Development* 18 (4): 505-512.
- Xia Guang. 1995. "Environmental Problems and Policies in China's Industrialization." *Asian Journal of Environmental Management* 3 (May): 7-11.
- Yohe, G.W. 1992. "Carbon Emissions Taxes: Their Comparative Advantage Under Uncertainty." *Annual Review of Energy and the Environment* 17: 301-326.
- Young, J.E. 1991. *Discarding the Throwaway Society*. Worldwatch Paper No. 101. Washington, DC: Worldwatch Institute.
- Young, K.R., W.B. Church, M. Leo, and P.F. Moore. 1994. "Threats to Rio Abiseo National Park, Northern Peru." *Ambio* 23 (4/5): 312-314.
- Young, O.R. 1993. "Negotiating an International Climate Regime: The Institutional Bargaining for Environmental Governance." Pp. 431-452 in *Global Accord: Environmental Challenges and International Responses*, ed. N. Choucri. Cambridge, MA: The MIT Press.
- Zhang Yuanduan. 1987. "Environmental Protection in Urban Centers." *Ekistics* 54 (January/February): 28-33.

Zylicz, T. 1991. "The Role for Economic Incentives in International Allocation of Abatement Effort." Pp. 384-399 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.

D. Ethical Issues

- Allison, L. 1991. *Ecology and Utility: The Philosophical Dilemmas of Planetary Management*. Rutherford, NJ: Fairleigh Dickinson University Press.
- Attfield, R. 1983. *The Ethics of Concern for Nature*. New York: Columbia University Press.
- Axelrod, L.J. 1994. "Balancing Personal Needs with Environmental Protection: Identifying the Values that Guide Decisions in Ecological Dilemmas." *Journal of Social Issues* 50 (3): 85-104.
- Bailey, R. and M. Fumento. 1992. *Eco-Scam: The False Prophets of Ecological Apocalypse*. New York: Saint Martin's Press.
- Barkenbus, J.N. 1977. "Slowed Growth and Third World Welfare." Pp. 305-324 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Beatley, T. 1989. "Environmental Ethics and Planning Theory." *Journal of Planning Literature* 4 (Winter): 1-32.
- Boerner, C. and T. Lambert. 1995. "Environmental Justice." *The Public Interest*, No. 118 (Winter): 83-99.
- Booth, D.E. 1990. "Review Essay: In Defense of the Land Ethic and Respect for Nature." *Review of Social Economy* 48 (1): 85-96.
- Booth, D.E. 1992. "The Economics and Ethics of Old Growth Forests." *Environmental Ethics* 14 (1): 43-62.
- Booth, D.E. 1994. "Ethics and the Limits of Environmental Economics." *Ecological Economics* 9 (April): 241-252.
- Brennan, A.A. 1988. *Thinking About Nature: An Investigation of Nature, Value, and Ecology*. London: Routledge.
- Brennan, A.A. 1995. "Ecological Theory and Value in Nature." Pp. 188-214 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Bullard, R.D. (ed.) 1994. *Unequal Protection: Environmental Justice and Communities of Color*. San Francisco: Sierra Club Books.
- Calicott, J.B. 1985. "Intrinsic Value, Quantum Theory, and Environmental Ethics." *Environmental Ethics* 7 (Fall): 257-273.
- Calicott, J.B. 1989. *In Defense of the Land Ethic: Essays in Environmental Philosophy*. Albany: State University of New York Press.
- Calicott, J.B. 1995. "Animal Liberation: A Triangular Affair." Pp. 29-59 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Calicott, J.B. and R.T. Ames (eds.). 1989. *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. Albany: State University of New York Press.
- Cheney, J. 1987. "Ecofeminism and Deep Ecology." *Environmental Ethics* 9 (Summer): 115-145.
- Clayton, S. 1994. "Appeals to Justice in the Environmental Debate." *Journal of Social Issues* 50 (3): 13-27.

- Clark, M.E. 1989. *Adriadne's Thread: The Search for New Modes of Thinking*. New York: Macmillan.
- Clements, C.D. 1995. "Stasis: The Unnatural Value." Pp. 215-225 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Crocker, D.A. 1990. "The Hope for Just, Participatory Ecodevelopment in Costa Rica." Pp. 150-163 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Daly, H.E. and J. B. Cobb, Jr. 1989. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Daly, H.E. and J. B. Cobb, Jr. 1994. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Second edition, Updated and Expanded. Boston: Beacon Press.
- Daly, H.E. and K. Townsend. (eds.) 1993. *Valuing the Earth: Economy, Ecology, Ethics*. Cambridge, MA: The MIT Press.
- Dasman, R. 1988. "Toward a Biophysical Consciousness." Pp. 277-288 in *The Ends of the Earth*, ed. D. Worster. Cambridge: Cambridge University Press.
- Dengston, A.R. 1980. "Shifting Paradigms: From the Technocratic to the Person-Planetary." *Environmental Ethics* 2 (Fall): 221-240.
- Devall, B. 1980. "The Deep Ecology Movement." *Natural Resources Journal* 20 (Spring): 299-322.
- Devall, B. and G. Sessions. 1985. *Deep Ecology: Living as if Nature Mattered*. Salt Lake City: Peregrine Smith Books.
- Diamond, J. 1993. "New Guineans and Their Natural World." Pp. 251-271 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Dryzek, J.S. 1990. "Green Reason: Communication Ethics for the Biosphere." *Environmental Ethics* 12 (Autumn): 195-210.
- Dubos, R. 1980. *The Wooing of the Earth*. New York: Scribners.
- Dwivedi, O.P. 1990. "Satyagraha for Conservation: Awakening the Spirit of Hinduism." Pp. 201-212 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Edwards, S.F. 1987. "In Defense of Environmental Economics." *Environmental Ethics* 9: 82-85.
- Eckersley, R. 1992. *Environmentalism and Political Theory*. Oxford: UCL Press.
- Elliot, R. (ed.) 1995a. *Environmental Ethics*. New York: Oxford University Press.
- Elliot, R. 1995b. "Faking Nature." Pp. 76-88 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.

- Elliot, R. 1995c. "Introduction." Pp. 1-20 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Engel, J.R. 1990. "Introduction: The Ethics of Sustainable Development." Pp. 1-23 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Engel, J.R. and J.G. Engel (eds.) 1990. *Ethics of Environment and Development: Global Challenge and International Response*. Tucson: University of Arizona Press.
- Evernden, L.L.N. 1985. *The Natural Alien: Humankind and the Environment*. Toronto: University Of Toronto Press.
- Feinberg, J. 1974. "The Rights of Animals and Unborn Generations." Pp. 43-68 in *Philosophy and Environmental Crisis*, ed. W.T. Blackstone. Athens: University of Georgia Press.
- Ferre, F. and P. Hartel (eds.). 1994. *Ethics and Environmental Policy: Theory Meets Practice*. Athens: University of Georgia Press.
- Ferry, L. 1995. *The New Ecological Order*. Chicago: University of Chicago Press.
- Fox, W. 1980. "The Deep Ecology-Ecofeminism Debate and Its Participants." *Environmental Ethics* 11 (Spring): 5-26.
- Fox, W. 1995. *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism*. Albany: State University of New York Press.
- Frankel, C. 1976. "The Rights of Nature." Pp. 93-114 in *When Values Conflict*, eds. L.H. Tribe, C.S. Schelling, and J. Voss. New York: Wiley.
- Gadgil, M. 1993. "Of Life and Artifacts." Pp. 365-377 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Glasser, H., P.P. Craig, and W. Kempton. 1994. "Ethics and Values in Environmental Policy: The Said and the UNCED." Pp. 83-107 in *Toward Sustainable Development: Concepts, Methods, and Policy*, eds. J.C.J.M. van den Bergh and J. van der Straaten. Washington, DC: Island Press.
- Goodin, R.E. 1992. *Green Political Theory*. Oxford: Polity Press.
- Goodin, R.E. 1994. "Selling Environmental Indulgences." *Kyklos* 47 (4): 573-596.
- Goodland, R. 1993. "Ethical Priorities in Environmentally Sustainable Energy Systems: The Case of Tropical Hydropower." *International Journal of Sustainable Development* 1 (4): 3-14.
- Goulet, D. 1990. "Development Ethics and Ecological Wisdom." Pp. 36-49 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Gudynas, E. 1990. "The Search for an Ethic of Sustainable Development in Latin America." Pp. 139-149 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G.

- Engel. Tucson: University of Arizona Press.
- Guha, R. 1989. "Radical Environmentalism and Wilderness Preservation: A Third World Critique." *Environmental Ethics* 11 (Spring): 71-80.
- Hågvar, S. 1994. "Preserving the Natural Heritage: The Process of Developing Attitudes." *Ambio* 23 (8): 515-518.
- Hallman, D.G. (ed.). 1994. *Ecotheology: Voices from South and North*. New York: Orbis Books.
- Hargrove, E.C. (ed.) 1986. *Beyond Spaceship Earth: Environmental Ethics and the Solar System*. San Francisco: Sierra Club Books.
- Hargrove, E.C. 1989. *Foundations of Environmental Ethics*. Englewood Cliffs, NJ: Prentice-Hall.
- Heerwagen, J.H. and G.H. Orians. 1993. "Humans, Habitats, and Aesthetics." Pp. 138-172 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Heinegg, P. 1979. "Ecology and Social Justice: Ethical Dilemmas and Revolutionary Hopes." *Environmental Ethics* 1 (Winter): 321-327.
- Henderson, H. 1991. "From Economism to Earth Ethics and Systems Theory." Pp. 71-110 in her *Paradigms in Progress: Life Beyond Economics*. Indianapolis, IN: Knowledge Systems, Inc.
- Hill, Jr., T.E. 1983. "Ideals of Human Excellence and Preserving Natural Environments." *Environmental Ethics* 5: 211-224.
- Howarth, R.B. 1992. "Intergenerational Justice and the Chain of Obligation." *Environmental Values* 1 (Summer): 133-140.
- Howarth, R.B. and R.B. Norgaard. 1990. "Intergenerational Resource Rights, Efficiency, and Social Optimality." *Land Economics* 66 (February): 1-11.
- Howarth, R.B. and R.B. Norgaard. 1993. "Intergenerational Transfers and the Social Discount Rate." *Environmental and Resource Economics* 3 (August): 337-358.
- Hubbard, F.P. 1977. "Justice, Limits to Growth, and an Equilibrium State." *Philosophy and Public Affairs* 7: 326-345.
- Izzi Deen, M.Y. (Samarrai). 1990. "Islamic Environmental Ethics: Law and Society." Pp. 189-198 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Jackson, D. 1991. "Who Speaks for the Land?" Pp. 135-146 in *Media and the Environment*, eds. C.L. LaMay and E.E. Dennis. Washington, DC: Island Press.
- John, D.M. 1990. "The Relevance of Deep Ecology to the Third World." *Environmental Ethics* 12 (Fall): 233-253.
- Katcher, A. and G. Wilkins. 1993. "Dialogue with Animals: Its Nature and Culture." Pp. 173-197 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.

- Kealey, D.A. 1990. *Revisoning Environmental Ethics*. Albany: State University of New York Press.
- Kellert, S.R. 1993. "The Biological Basis for Human Values of Nature." Pp. 42-69 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Kellert, S.R. and E.O. Wilson (eds.). 1993. *The Biophilia Hypothesis*. Washington, DC: Island Press.
- Kneese, A.V. and W.D. Shultze. 1985. "Ethics and Environmental Economics." Pp. 191-220 in *Handbook of Natural Resource and Energy Economics*, Vol. 1, eds. A.V. Kneese and J.L. Sweeney. Amsterdam: North-Holland.
- Koekok, D.A. 1989. *Social Philosophy and Ecological Scarcity*. New York: Routledge.
- Kothari, R. 1990. "Environment, Technology, and Ethics." Pp. 27-35 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Lawrence, E.A. 1993. "The Sacred Bee, the Filthy Pig, and the Bat Out of Hell: Animal Symbolism as Cognitive Biophilia." Pp. 301-341 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Lewis, M.W. 1992. *Green Delusions: An Environmentalist Critique of Radical Environmentalism*. Durham, NC: Duke University Press.
- Lippit, V.D. and K. Ramada. 1977. "Efficiency and Equity in Intergenerational Distribution." Pp. 285-299 in *The Sustainable Society*, ed. D.C. Pirages. New York: Praeger.
- Mathews, F. 1991. *The Ecological Self*. New York: Barnes and Noble Books.
- Mathews, F. 1995. "Value in Nature and Meaning in Life." Pp. 142-154 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Maybury-Lewis, D. 1992. *Tribal Wisdom and the Modern World*. New York: Viking Penguin.
- McCleary, R. 1991. "The International Community's Claim to Rights in Brazilian Amazonia." *Political Studies* 39 (4): 691-707.
- McCloskey, H.J. 1983. *Ecological Ethics and Politics*. Savage, MD: Rowman and Littlefield.
- Merchant, C. (ed.) 1994. *Ecology: Key Concepts in Critical Theory*. Atlantic Highlands, NJ: Humanities Press International.
- Midgley, M. 1995. "Duties Concerning Islands." Pp. 89-103 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Milbrath, L.W. 1984. "A Proposed Value Structure for a Sustainable Society." *The Environmentalist* 4: 113-124.

- Nabhan, G.P. and S. St. Antoine. 1993. "The Loss of Floral and Faunal Story: The Extinction of Experience." Pp. 229-250 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Naess, A. 1986. "The Deep Ecological Movement: Some Philosophical Aspects." *Philosophical Inquiry* 8 (½): 11-31.
- Naess, A. 1992. "Deep Ecology and Ultimate Premises." *Society and Nature* 1 (2): 108-119.
- Naess, A. with D. Rothenberg. 1989. *Ecology, Community and Lifestyle*. Cambridge: Cambridge University Press.
- Nash, J.A. 1989. "Ecological Integrity and Christian Political Responsibility." *Theology and Public Policy* 1 (Fall): 32-48.
- Nash, R.F. 1989. *The Rights of Nature: A History of Environmental Ethics*. Madison: University of Wisconsin Press.
- Nelson, R. 1993. "Searching for the Lost Arrow: Physical and Spiritual Ecology in the Hunter's World." Pp. 201-228 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Norgaard, R.B. and R.B. Howarth. 1991. "Sustainability and Discounting the Future." Pp. 88-101 in *Ecological Economics: The Science and Management of Sustainability*, ed. R. Costanza. New York: Columbia University Press.
- Norton, B.G. 1982. "Environmental Ethics and Rights of Future Generations." *Environmental Ethics* 4 (Winter): 319-337.
- Norton, B.G. 1984. "Environmental Ethics and Weak Anthropocentrism." *Environmental Ethics* 6 (Summer): 131-148.
- Norton, B.G. 1987. *Why Preserve Natural Variety?* Princeton, NJ: Princeton University Press.
- Norton, B.G. 1989. "Intergenerational Equity and Environmental Decisions: A Model Using Rawls' Veil of Ignorance." *Ecological Economics* 1 (May): 137-159.
- Norton, B.G. 1991. *Toward Unity Among Environmentalists*. New York: Oxford University Press.
- Norton, B.G. 1992. "Sustainability, Human Welfare, and Ecosystem Health." *Environmental Values* 1 (Summer): 97-111.
- Oates, D. 1989. *Earth Rising: Ecological Belief in an Age of Science*. Corvallis: Oregon State University Press.
- Oelschlaeger, M. 1991. *The Idea of Wilderness: From Prehistory to the Age of Ecology*. New Haven, CT: Yale University Press.
- Omari, C.K. 1990. "Traditional African Land Ethics." Pp. 167-175 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.

- Omono-Fadaka, J. 1990. "Communalism: The Moral Factor in African Development." Pp. 176-182 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- O'Neill, J. 1993. *Ecology, Policy and Politics: Human Well-Being and the Natural World*. New York: Routledge.
- Opotow, S. 1994. "Predicting Protection: Scope of Justice and the Natural World." *Journal of Social Issues* 50 (3): 49-63.
- Opotow, S. and S. Clayton. 1994. "Green Justice: Conceptions of Fairness and the Natural World." *Journal of Social Issues* 50 (3): 1-11.
- Orenstein, R.E. and P.R. Ehrlich. 1989. *New World, New Mind: Moving Toward Conscious Evolution*. New York: Doubleday.
- Orr, D.W. 1993. "Love It or Lose It: The Coming Biophilia Revolution." Pp. 415-440 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Paehlke, R. 1988. "Democracy, Bureaucracy, and Environmentalism." *Environmental Ethics* 10 (Winter): 291-308.
- Page, T. 1983. "Intergenerational Justice as Opportunity." Pp. 38-58 in *Energy and the Future*, eds. D. MacLean and P.G. Brown. Savage, MD: Rowman and Littlefield.
- Passmore, J. 1974. *Man's Responsibility for Nature: Ecological Problems and Western Traditions*. Second Edition. London: Duckworth.
- Passmore, J. 1991. *The Ecological Self*. London: Routledge.
- Passmore, J. 1995. "Attitudes to Nature." Pp. 129-141 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Pietila, H. 1990. "The Daughters of Earth: Women's Culture as a Basis for Sustainable Development." Pp. 235-244 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Plumwood, V. 1995. "Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism." Pp. 155-164 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Rasinski, K.A., T.W. Smith, and S. Zuckerbraun. 1994. "Fairness Motivations and Tradeoffs Underlying Public Support for Environmental Spending in Nine Nations." *Journal of Social Issues* 50 (3): 179-197.
- Regan, T. 1981. "The Nature and Possibility of an Environmental Ethic." *Environmental Ethics* 3: 19-34.
- Reichert, D. 1993. "Subjection Objected." Pp. 195-202 in *Human Ecology: Fragments of Anti-Fragmentary Views of the World*, eds. D. Steiner and M. Nauser. New York: Routledge.
- Ridley, M. and B.S. Low. 1993. "Can Selfishness Save the Environment?" *Atlantic Monthly* 272 (September): 76-78, 80-84, 86.

- Rolston III, H. 1988. *Environmental Ethics: Duties to and Values in the Natural World*. Philadelphia: Temple University Press.
- Rolston III, H. 1993. "Biophilia, Selfish Genes, and Shared Values." Pp. 381-414 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Rolston III, H. 1995. "Duties to Endangered Species." Pp. 60-75 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Roszak, T. 1978. *Person/Planet: The Creative Disintegration of Industrial Society*. Garden City, NY: Doubleday Anchor Books.
- Roszak, T. 1992. *The Voice of the Earth*. New York: Simon and Schuster.
- Routley, R. and V. Routley. 1995. "Against the Inevitability of Human Chauvinism." Pp. 104-128 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Sagan, D. and L. Margulis. 1993. "God, Gaia, and Biophilia." Pp. 345-364 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Sagoff, M. 1974. "On Preserving the Natural Environment." *Yale Law Review* 84: 205-267.
- Sagoff, M. 1987. "Where Ickes went Right or Reason and Rationality in Environmental Law." *Ecology Law Quarterly* 14: 265-323.
- Sagoff, M. 1988. *The Economy of the Earth: Philosophy, Law, and the Environment*. Cambridge: Cambridge University Press.
- Sagoff, M. 1995. "Can Environmentalists be Liberals?" Pp. 165-187 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Salleh, A.K. 1984. "Deeper than Deep Ecology: The Eco-Feminist Connection." *Environmental Ethics* 6 (Winter): 339-345.
- Salleh, A.K. 1990. "Living with Nature: Reciprocity or Control?" Pp. 245-253 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Salleh, A.K. 1992. "The Ecofeminism/Deep Ecology Debate: A Reply to Patriarchal Reason." *Environmental Ethics* 14 (Fall): 195-216.
- Salleh, A.K. 1993. "Class, Race, and Gender Discourse in the Ecofeminism/Deep Ecology Debate." *Environmental Ethics* 15 (Fall): 225-244.
- Seligman, C., G.J. Syme, and R. Gilchrist. 1994. "The Role of Values and Ethical Principles in Judgments of Environmental Dilemmas." *Journal of Social Issues* 50 (3): 105-119.
- Shearman, R. 1990. "The Meaning and Ethics of Sustainability." *Environmental Management* 14 (January/February): 1-8.
- Shepard, P. 1993. "On Animal Friends." Pp. 275-300 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.

- Shirk, E. 1988. "New Dimensions in Ethics: Ethics and the Environment." *Journal of Value Inquiry* 22: 77-85.
- Shue, H. 1992. "The Unavoidability of Justice." Pp. 373-397 in *The International Politics of the Environment: Actors, Interests, and Institutions*, eds. A. Hurrell and B. Kingsbury. New York: Oxford University Press.
- Simon, T.W. 1990. "Varieties of Ecological Dialectics." *Environmental Ethics* 12 (3): 211-231.
- Sivaraksa, S. 1990. "A Buddhist Perception of a Desirable Society." Pp. 213-221 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Sober, E. 1995. "Philosophical Problems for Environmentalism." Pp. 226-247 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Solow, R.M. 1986. "On the Intergenerational Allocation of Natural Resources." *Scandinavian Journal of Economics* 88 (June): 141-149.
- Soulé, M.E. 1993. "Biophilia: Unanswered Questions." Pp. 441-455 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Spash, C. 1993. "Economics, Ethics, and Long-Term Environmental Damages." *Environmental Ethics* 15 (2): 117-132.
- Spretnak, C. 1986. *The Spiritual Dimension of Green Politics*. Santa Fe, NM: Bear and Co.
- Stern, P.C. and T. Dietz. 1994. "The Value Basis of Environmental Concern." *Journal of Social Issues* 50 (3): 65-84.
- Stone, C.D. 1987. *Earth and Other Ethics: The Case for Moral Pluralism*. New York: Harper and Row.
- Stone, C.D. 1993. *The Gnat is Older than Man: Global Environment and Human Agenda*. Princeton, NJ: Princeton University Press.
- Sui-Cheong Chau, S. and F. Kam-Kong. 1990. "Ancient Wisdom and Sustainable Development from a Chinese Perspective." Pp. 222-231 in *Ethics of Environment and Development: Global Challenge and International Response*, eds. J.R. Engel and J.G. Engel. Tucson: University of Arizona Press.
- Taylor, P.W. 1986. *Respect for Nature: A Theory of Environmental Ethics*. Princeton, NJ: Princeton University Press.
- Thompson, P.B. 1986. "Uncertainty Arguments in Environmental Issues." *Environmental Ethics* 8 (1): 59-76.
- Tisdell, C. 1989. "Environmental Conservation: Economics, Ecology, and Ethics." *Environmental Conservation* 16 (Summer): 107-112.
- Toman, M.A. 1994. "Economics and 'Sustainability': Balancing Trade-Offs and Imperatives." *Land Economics* 70 (November): 399-413.

- Turner, R.K. 1991. "Environment, Economics and Ethics." Pp. 209-224 in *Blueprint 2: Greening the World Economy*, ed. D. Pearce. London: Earthscan.
- Ulrich, R.S. 1993. "Biophilia, Biophobia, and Natural Landscapes." Pp. 73-137 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Warren, K.J. 1987. "Feminism and Ecology: Making Connections." *Environmental Ethics* 9 (1): 3-20.
- Warren, K.J. 1990. "The Power and Promise of Ecological Feminism." *Environmental Ethics* 12 (2): 125-146.
- Weiss, E.B. 1989. *In Fairness to Future Generations*. Dobbs Ferry, NY: Transnational Publishers.
- Wenz, P.S. 1988. *Environmental Justice*. Albany: State University of New York Press.
- Williams, MB 1995. "Discounting Versus Maximum Sustainable Yield." Pp. 21-28 in *Environmental Ethics*, ed. R. Elliot. New York: Oxford University Press.
- Wilson, E.O. 1984. *Biophilia: The Human Bond to Other Species*. Cambridge, MA: Harvard University Press.
- Wilson, E.O. 1993. "Biophilia and the Conservation Ethic." Pp. 31-41 in *The Biophilia Hypothesis*, eds. S.R. Kellert and E.O. Wilson. Washington, DC: Island Press.
- Worster, D. 1980. "The Intrinsic Value of Nature." *Environmental Review* 4: 43-49.
- Worster, D. 1993. *The Wealth of Nature: Environmental History and the Ecological Imagination*. New York: Oxford University Press.
- Zimmerman, M.E. 1987. "Ecofeminism, Deep Ecology, and Environmental Ethics." *Environmental Ethics* 9 (Spring): 21-44.
- Zimmerman, M.E. 1994. *Contesting Earth's Future: Radical Ecology and Postmodernity*. Berkeley: University of California Press.

Author Index

- Abel, N.O.J.** 179, 234
Abdul Quium, A.S.M. 268
Abeykoon, A.T.P.L. 40
Abrahamson, D.E. 169
Abramovitz, J.N. 234
Acheson, J.M. 21, 29,
102, 105
Ackerman, E.A. 98
Adalemo, I.A. 189
Adams, P. 205
Adams, R.N. 98
Adams, W.M. 40
Adamson, D. 205
Adefolalu, D.O. 179
Adger N. 66
Adger W.N. 40, 121, 208
Adhikari, J. 234
Adiwoso Suprpto 130
Adlard, P.G. 247
Adnan, M.H.H. 40
Afolayan, A.A. 167
Agarwal, B. 40, 121
Agbo, V. 121
Agnihotri, Y. 235
Aguilera-Klink, F. 11
Ahlbäck, A.J. 234
Ahlburg, D.A. 40
Ahlcrona, E. 179
Ahmad, A. 77
Ahmed, K. 234
Ajaegbu, H. 40
Akerman, N. 205
Alarcón, R. 133
Alario, M. 40, 205
Alayev, E.B. 162
Alberts, J.J. 9
Alberly, M. 210
Albrecht, D.E. 11, 98
Alcorn, J.B. 234
Alegretti, M.H. 234
Ali, I. 59
Ali, O.M. 180
Allegretti, M.A. 77
Allen, J.C. 121
Allen, P., 11
Allen, T.F.H. 6
Allen, W.R. 98
Allenby, B.R. 205
Allison, L. 274
Alpert, S.B. 234
Alsogaray, M.J. 40
Altieri, M.A. 121
Alvarado, L. 40
Al-Wattari, A.J. 98, 114
Ames, R.T. 274
Amir, S. 6, 11
Amram, O. 79
Amuzu, A.T. 185
Anderbeg, S. 167
Anderson, A.B. 121, 234
Anderson, C.H. 40
Anderson, D. 110, 121,
179, 234, 262
Anderson, D.M. 58
Anderson, L.E. 40
Anderson, R.S. 235
Anderson, S. 162
Anderson, T.L. 121, 235
Andersson, R. 136
Ando, H. 64
Andreae, M.O. 169
Andrén, O. 169
AndAndrews, C. 11, 262
Angell, D.J.R. 205
Annis, S. 41
Antle, J.M. 41, 162
Antoine, S.St. 279
Appasamy, P. 262
Arad, R.W. 98
Arbhabhirama, A. 41
Archibugi, F. 205
Archives 6
Arden-Clarke, C. 41, 205
Areola, O.O. 167
Arheimer, B. 77
Arias, O. 235
Arizpe, L. 6, 11, 41, 98
Armitage, J. 235
Arndt, H.W. 77
Arnold, J.E.M. 235
Aronson, E. 119
Arrhenius, E. 169, 235
Arrigo, L.G. 41
Arrow, K. 41
Arrow, K.J. 11
Arroyo, M.T.K. 121
Arya, S.L. 235
Ascher, W. 41, 235
Asian NGO Coalition 41
Asibey, E.O.A. 245
Assetto, V.J. 229
Atkins, P.W. 6
Atkinson, A. 11
Atkinson, G.D. 66
Attanasi, E.D. 111
Attfield, R. 274
Attiga, A.A. 205
Audley, J. 41
Ausubel, J.H. 169, 205,
262
Auty, R.M. 114
Avery, D. 121, 235
Ayensu, E.S. 149
Axelrod, L.J. 274
Ayibotele, N.B. 121, 235
Aylward, B. 41
Ayoade, J.O. 167
Ayles, E. 77
Ayles, R. 205
Ayles, R.U. 11, 162, 169,
205
Azzoni, C.R. 77
Backman, K. 31
Badenkov, Y.P. 162
Bahenberg, G. 11
Bähr, J. 185
Bahuruna, V.K. 235
Bailey, C. 122

Author Index

- Bailey, K.D. 11
Bailey, N.A. 42
Bailey, R. 11, 42, 274
Bairoch, P. 185
Bajracharya, D. 122
Baldwin, S.F. 235
Balice, R.G. 105
Balick, M. 133
Ballenger, N. 207
Balling, Jr., R.C. 169
Bandyopadhyay, J. 256
Banerjee, S. 42, 114
Banks, D. 216
Baños Ramírez, O. 235
Baranzini, A. 42
Barber, C.V. 140
Barber, R.T. 6
Barber, W. 243
Barbier E. 41, 206, 236, 262
Barbier, E.B. 11, 42, 77, 98, 122, 169
Barbieri, A. 139
Barborak, J.R. 236
Bardhan, P. 206
Barham, B. 114
Barkenbus, J.N. 274
Barker, R. 126
Barkin, D. 42, 122
Barlow, C. 12, 122
Barnard, A. 12
Barnes, D.F. 121
Barnet, R.J. 98, 206
Barnett, H.J. 98, 110
Barney, G.O. 77, 98, 114, 122, 169
Barraclough, S.L. 122
Barrett, S. 42, 206, 262
Barron, D.N. 12
Barron, W. 86
Barron, W.E. 262
Barron, W.F. 169
Barrow, C.J. 42, 122, 179, 206
Barry, R.G. 173
Bartelmus, P. 42, 77, 206
Bartholomew, J.A. 211
Bartiaux, F. 169
Bartlett, A.A. 42
Bartone, C. 262
Basnet, K. 236
Bass, H.H. 114
Bassett, T.J. 122
Bassow, W. 162
Bass, S. 146
Basterrechea, M. 71
Bates, L.M. 215
Batie, S.S. 12, 122
Batliwala, S. 114
Baucus, Senator M. 42
Bauder, J.W. 227
Bauer, J.G. 186
Baum, J.A.C. 12
Baumol, W.J. 110, 206
Bautista, G.M. 122
Bazzaz, F.A. 170
Bayley, P.B. 236
Bean, M.J. 241
Beanlands, G. 42
Beatley, T. 274
Beck, U. 12
Beckerman, W. 44, 170, 262
Beckers, H.L. 162
Beckmann, P. 114
Bednarz, R.S. 43
Bedoya, G.E. 122, 179
Beer, C. 84
Begon, M. 6
Behrens, W. 225
Behrens, W.W. 62, 105, 111
Beier, G.J. 185
Beinhart, W. 179, 236
Bekkering, T.D. 262
Bekoe, D.A. 206
Belaev, A.V. 138
Belisle, F.J. 56
Bell, D. 12, 206
Bell, F.W. 111
Bello, R. 75
Bencherifa, A. 167
Bendetta, G. 139
Benedick, R.E. 262
Benetiz, J.A. 49
Bennett, B. 133
Bennett, J. 236
Bennett, J.T. 111, 114
Bennett, J.W. 12, 43, 98
Benoit, E. 98
Benton, T. 13, 34
Berg, H. 162
Berger, J. 13
Berggren, N. 136
Berkes, F. 13, 21, 43, 99, 102, 243
Berkhout, F. 11, 71, 236
Berkoff, J. 243
Berlin, K. 43
Bernal, P. 122
Bernard, G. 129
Bernauer, T. 206
Bernstam, M.S. 99, 100
Bernstein, J.D. 236, 262
Berry, B.J.L. 185
Berry, L. 60, 162
Berry, S. 99
Bertram, G. 262
Bettridge, G.E. 264
Beveridge, M.C.M. 236
Beyer, J.L. 110
Bezdek, R.H. 263
Bhagwati, J. 43
Bhalla, A.S. 43
Bidin, K. 128
Bidwell, C.E. 13
Bienen, H. 43
Biggs, G. 43
Bilsborrow, R. 43
Bilsborrow, R.E. 123
Bina, C. 99
Binkley, C. 256
Binkley, C.S. 151, 259
Binns, T. 179

- Binswanger, H.P. 123, 236
 Biot, Y. 123, 179
 Birdsall, N. 43, 170, 206
 Birnie, P. 206
 Bishop, J. 236, 258
 Bishop, R.C. 236
 Biswas, A.K. 123, 170
 Biswas, M.R. 123
 Black, R. 43, 123, 207
 Blaikie, P. 13, 43, 99, 123, 124, 179, 207, 236
 Blaikie, P.M. 179
 Blair, P.D. 244
 Blamey, R. 77
 Blau, D.M. 102
 Blincow, M. 185
 Bloom, D.E. 43
 Bluman, L. 118, 252
 Blumenfeld, J.E. 228
 Boado, E.L. 237
 Boardman, R. 207
 Bobrow, D.B. 207
 Bocking, S.A. 83
 Boccock, R. 13
 Bodansky, D. 263
 Boehmer-Christianson, S. 263
 Boeker, W.P. 13
 Boerner, C. 274
 Bohi, D.R. 114
 Bohle, H.G. 38, 124, 170
 Bojo, J. 44
 Bolin, B. 11, 41
 Bongaarts, J. 124, 170
 Bookchin, M. 13, 207
 Booth, A. 99, 124
 Booth, D.E. 274
 Bormann, F.H. 170
 Borunov, A. F. 162
 Boserup, E. 124
 Botkin, D.B. 44, 124
 Boulding, K.E. 6, 13, 114
 Boutwell, J.H. 56
 Bowander, B. 44
 Bower, B.T. 266
 Bowers, J. 268
 Bowman, D.M.J.S. 124
 Bowonder, B. 124, 237
 Box, T.W. 124
 Boxer, B. 44
 Boyce, J.K. 13
 Boyd, R. 13
 Boyden, S. 13, 44
 Braat, L.C. 99
 Braden, J.B. 77
 Bradley, P.N. 124, 237
 Bradshaw, A.D. 237
 Bradshaw, Y.W. 44, 67
 Brady, N. 237
 Bramble, B.J. 207
 Bramwell, A. 6
 Brand, K. 259
 Brandon, C. 207
 Braswell, B.H. 8
 Braungart, M. 263
 Brechin, S.R. 9, 13, 32, 87, 124, 207
 Breckle, S.W. 10
 Bredahl, M.E. 207
 Brenes Vargas, A. 170
 Brennan, A.A. 274
 Brennan, E.M. 185
 Breslin, J.W. 230
 Brewer, G.D. 207
 Briscoe, J. 86
 Brittain, J. 14
 Broad, R. 44
 Broadus, J.M. 170
 Brobst, D.A. 99, 110
 Brockett, C.D. 124
 Broecker, W.S. 170
 Brokensha, D. 124
 Bromley, D. 44
 Bromley, D.W. 237
 Brookfield, H. 124, 162, 236
 Brookfield, H.C. 44
 Brooks, H. 44
 Brooks, K. 237
 Brooks, R.O. 216
 Brooks, T.M. 143
 Brough, H.B. 241, 264
 Broussard, C.A. 14
 Browder, J.O. 125, 237
 Browman, D.L. 237
 Brown, B.J. 14, 77, 82, 207
 Brown, J. 132
 Brown, Jr., G.M. 77
 Brown, H.S. 14, 163
 Brown, J.H. 6
 Brown, J.W. 44
 Brown, K. 121, 208
 Brownlow, A. 171
 Brown, L. 148
 Brown, L.R. 14, 45, 77, 110, 114, 125, 163, 179, 180, 185, 208, 237, 263
 Brown, N. 45, 170
 Brown, S. 138
 Brown, W.M. 110
 Brox, O. 14, 99
 Bruce, J.W. 125, 132
 Brüder, J. 14
 Bruenig, E.F. 238
 Bruhn, J. 6
 Brundtland, G.H. 45, 209
 Brush, S. 125
 Brussard, P.F. 238
 Bryson, R.A. 173
 Bucher, E.H. 45
 Buck, S.J. 14, 99
 Budowski, G. 238
 Buestelo, E.S. 78
 Bukkens, S. 52
 Bull, D. 163
 Bullard, R.D. 274
 Bunker, S.G. 14, 99, 100, 126
 Burch, Jr., W.R. 14, 21, 78, 100
 Burfley, J. 247

Author Index

- Burgess, J. 236
Burgess, J.C. 122, 126
Burgess, R. 14
Buringh, P. 126
Burke, S. 235
Burley, F.W. 126
Burley, J. 256
Burness, H.S. 239
Burnett, A. 45
Burnett, G.W. 238
Burnham, M. 133
Burningham, K. 14, 209
Burns, T.P. 6
Burns, T.R. 14, 19
Burpee, C.G. 149
Burt, B. 126
Burt, O. 253
Burton, I. 6, 185
Butler, C. 45
Buttel, F.H. 14, 15, 19,
26, 45, 72, 100
Buttel, F.R. 56, 116, 136
Butzer, K.W. 15
Byron, Y. 44, 124
- Caccia, C.** 209
Cáceras, V.L. 238
Cain, M. 62
Cairncross, F. 163
Cairns, J. 78, 163
Caldwell, J.C. 179, 180
Caldwell, L.K. 46, 209
Caldwell, P. 45
Calicott, J.B. 274
Cameron, J. 209
Campanario, M. 189
Campbell, C.L. 78
Campbell, T. 185
Cannon, T. 13
Cannon, W. 118, 252
Cantor, R. 15
Carbon Dioxide
Assessment
Committee 170
Carello, C. 15
- Carey, D.I. 46
Carley, M. 46, 209
Carley, M.J. 78
Carlson, E. 100
Caroll, C.R. 8
Carr, J. L. 7, 54, 80
Carroquino, M. 118
Carson, R.T. 82
Carpenter, R.A. 78, 209
Carpenter, S.R. 126
Carrasco, D.A. 238
Carriere, J. 46
Carroll, G.R. 15, 19, 21,
24
Carroll, J.E. 209
Carroll, M. S. 103
Carroquino, M. 252
Carter, G.C. 78
Cassen, R. 46
Castañeda, J. 238
Castilla, J.C. 46
Castro, A.P. 126
Catton, C. 263
Catton, Jr., W.R. 15, 16,
100, 101, 209
Caulfield, R.M. 101
Cavalcanti, C. 209
Cavandish, W. 263
Cecil, R.G. 46
Celis, R. 149
Center for Science and
Environment 186
Cernea, M. 16, 126, 238
Cerretelli, M.G. 132
Chadwick, M.J. 237
Chakraborty, D. 42
Chambers, R. 126
Champagne, D. 46
Chan, A.H. 238
Chan, G.L. 238
Chan, H.S. 263
Chan, K.C. 46
Chandler, K.L. 242
Chandler, P. 238
- Chandler, W.U. 46, 114,
208, 238
Chapman, D. 126
Chapman, D.S. 83
Chapman, M. 186
Charles, A.T. 16, 239
Charnovitz, S. 47
Chasin, B.H. 180
Chatterjee, P. 47, 209
Chattopadhyay, S. 126
Chaturvedi, A.N. 126, 170
Chau, Sui-Cheong 282
Chayes, A. 209
Chayes, A.H. 209
Chen, Chunhuai 238
Chen, R.S. 16
Chen, Xiande 239
Chenery, H.B. 101
Cheney, J. 274
Cheung, K.C. 263
Child, G.F.T. 239
Chisholm, M. 16
Chokor, B.A. 238
Choldin, H.M. 17, 30
Cho, L.J. 186
Choucri, N. 17, 47, 101,
209
Chowdhury, K. 47
Chowdhury, S.R. 247
Chow, J.C. 177
Christensen, P. 17
Christie, I. 209
Chung, Y. 118, 252
Church, W.B. 272
Clad, J.C. 210
Clark, C.W. 17, 101, 239
Clark, J. 31
Clark, J.G. 114
Clark, H.L. 257
Clark, M.E. 17, 210, 275
Clark, R. 126, 163
Clark, W.C. 6, 10, 16, 17,
47, 210
Clarke, A. 29
Clarke, J. 26

- Clarke, R. 126
 Clarkson, J. 176
 Clawson, M. 239
 Clay, D.C. 126
 Clay, J.W. 127, 238
 Clayton, S. 274, 280
 Cleary, D. 210
 Cleaver, K.M. 127
 Clement, J. 115
 Clements, C.D. 275
 Cleveland, C.J. 101
 Cline-Cole, R.A. 127
 Cline, K. 49
 Cline, W.R. 170
 Clinton, R.L. 210
 Cloudsley-Thompson, J. 180
 Clouser, R. L. 60
 Cobb, J.B. 18, 212, 275
 Cockburn, A. 135
 Coffey, W.J. 137
 Coggins, C. 239
 Cohen, J.E. 17, 47
 Cohen, M. 186
 Cohnssen, J. 213
 Colby, M.E. 69, 210
 Colchester, M. 47
 Cole, J.P. 47, 110
 Coleman, L. 23
 Collins, J.L. 163
 Collins, M. 110, 127
 Comer, J. 205
 Common, M. 17, 47, 77, 210
 Commoner, B. 17, 47, 210
 Conant, F.P. 180
 Conca, K. 210
 Conelly, W.T. 127
 Connell, J.H. 6
 Connelly, P. 101, 210
 Constantin, J.A. 106
 Contreras, N.R. 238
 Conway, D. 148
 Conway, G. 6
 Cook, H.J. 180
- Coombs, H.C. 210
 Cooper, C.L. 214
 Cooper, R.N. 47, 210, 271
 Copeland, B.R. 163
 Cordell, H.K. 163
 Cordray, S.M. 103
 Corell, R. 8
 Cornwell, L. 263
 Corrales, O.M. 250
 Corson, C. 118, 252
 Corwin, R.G. 31
 Costanza, R. 11, 17, 41, 51, 57, 78, 82, 98, 210, 211, 263
 Costle, D.M. 163
 Cote, R.P. 51
 Cottrell, F. 101, 114
 Courier, K. 239
 Court, T. 18
 Covich, A.P. 127
 Cowling, E.B. 170
 Cox, G. 249
 Cox, R. 152
 Cox, S.B. 239
 Coxhead, I. 127, 180
 Craig, P.P. 276
 Crane, S. 255
 Crenshaw, E.M. 188
 Crocker, D.A. 275
 Crook, J. 18
 Cropper, M. 48, 127
 Crosby, A.W. 18
 Crosson, P.R. 127, 239
 Crowe, H.B. 211
 Crumely, C.L. 18
 Crutzen, P.J. 172
 Cruz, M. 127
 Cruz, W. 85, 127, 222
 Cuenca, W.P. 133
 Culbertson, J.M. 48
 Cumberland, J.H. 211, 263
 Cummings, R.G. 239
 Cutter, S.L. 18, 101
 Cvetkovitch, G. 211
- D'Antonio, W.V. 18**
 d'Arge, R.C. 41, 263
 Dabelko, G.D. 210
 Dahl, C. 115
 Dahlan, M.A. 18
 Dahlberg, K.A. 12, 101
 Daily, G.C. 18, 20, 48, 55, 128, 213, 239, 241
 Dalby, S. 48, 163
 Dale, V.H. 85, 176
 Dalton, R.J. 211
 Daly, H. 54
 Daly, H.E. 18, 48, 52, 53, 54, 101, 211, 212, 275
 Dankelman, I. 212
 Darmstadter, J. 114, 115, 163, 239, 240
 Das, I. 127
 Das, T. 42
 Dasgupta, P. 11, 41, 49, 78, 101
 Dasgupta, P.S. 49
 Dasmann, R. 275
 Dasman, R.F. 212
 Davidson, J. 212
 Davidson, O.R. 115
 Davis, D.E. 49
 Davis, I. 13
 Davis, S.H. 49, 240
 de Camino, R. 85
 de Groot, W.T. 18
 de Jong, W. 251
 de la Court, T. 48
 de Montalembert, M.R. 115
 de Oliveira, A. 240
 de Onis, J. 49
 DeAngelis, D.L. 9
 De Boer, A.J. 240
 DeFries, R. 6
 DeFries, R.S. 70
 De Gregori, T.R. 101
 De Lisio, A. 70
 Deacon, R.T. 127

Author Index

- Deadman, D. 240
Dean, W. 49
DeBardeleben, J. 164
DeBellevue, E.G. 49
Deegan, C. 227
Delacroix, J. 19, 102
Delargy, P.F. 123
Deluca, D.R. 78
Demeny, P. 102
den Eizen, M.G.J. 270
Deneven, W.M. 110, 127
Dengston, A.R. 275
Dennis, E.E. 81, 219
Dennis, F. 66,
Denniston, D. 49, 240,
264
Deolalikar, A.B. 57
Derbyshire, E. 49
Desai, A.V. 240
Deudney, D. 49, 212, 240
Devall, B. 35, 275
Devalle, S.B.C. 49
DeWalt, B.R. 127, 149,
212, 240
Dewar, D. 186
Deweese, P.A. 128
Dewitt, D. 212
Dhar, S.K. 240
Di Pace, M. 186
Dial, K.P. 128, 186
Diamond, J. 143, 275
Diamond, J. M. 128
Dianwu, Z. 166
Diaz, C.P. 240
Diaz-Briquets, S. 49
Dice, L.R. 7
Dice, S.R. 266
Dickens, P. 19
Dickens, W.J. 146
Dickenson, R.E. 169
Dietz, F.J. 19
Dietz, T. 14, 19, 78, 186,
282
Dilworth, C. 19, 49
Dimondstone, B.I. 78
Dinar, I. 240
Disinger, J.F. 257
Ditz, D. 78
Ditz, D.W. 216
Dixon, J.A. 49, 78, 209,
212, 240, 247
Dobson, A. 19
Documents 50, 78, 212,
213, 264
Doebele, W.A. 241
Dogramaci, E. 213
Dogsé, P. 231
Dolin, E.J. 230
Dolman, A.J. 241
Donaldson, D.M. 264
Donner, W. 128
Dooge, J.C.I. 50, 213
Doolittle, W.E. 241
Döös, B.R. 128, 264
Dore, M.H.I. 241
Dorfman, R. 213
Dorian, J.P. 114
Dorn, H. 19
Dorner, P. 50, 128, 241
Dotto, L. 170
Douglas, I. 128, 180
Douglass, G.K. 19
Dourojeanni, M.J. 50, 166
Dove, M.R. 19, 50
Dovers, S. 44
Dovers, S.R. 50
Dow, J. 19
Dow, K.M. 10
Dowall, D.E. 186
Downing, J.A. 78
Downing, T.E. 128, 170,
171
Downs, A. 78
Downs, R.E. 128, 180
Draggan, S. 213
Drake, J.M. 8
Drake, W.D. 9, 13, 19, 32,
207
Drangert, J.-O. 50
Draper, S. 245
Dregne, H.E. 180
Druckman, D. 10, 36, 85,
229
Dryzek, J.D. 128
Dryzek, J.S. 19, 275
Dubos, R. 167, 275
Dubourg, W.R. 66
Dudek, D. 213
Duncan, O.D. 7, 19, 213
Dundon, E.A. 24
Dunk, T. 20
Dunkerly, J. 235
Dunkerley, H.B. 186, 241
Dunlap, R. 20
Dunlap, R.E. 16, 20, 32,
50, 79
Dunmore, J. 207
Durham, W.H. 20
Durning, A.T. 20, 50, 102,
241, 242, 264
Dürrenberger, G. 36
Dutkowski, M. 11
Dwivedi, O.P. 275
Dyson, M.B. 245
Dyson, T. 128

Earle, T.C. 211
East-West Center 128
Easterbrook, G. 213
Easterling, W.E. 171
Easterling III, W.E. 102
Ebel, R.E. 115
Eberstadt, N. 50, 79, 213
Eckersley, R. 20, 275
Eckholm, E. 115, 128,
129, 164, 180, 241
Economic Commission for
Latin America 50,
213
Economic Commission for
Latin America and the
Caribbean 50

- Economic and Social
 Commission for Asia
 and the Pacific 14, 18,
 26, 40, 47, 51, 62
- Eddy, J.A. 171
- Eden, S.E. 51
- Eder, J.F. 128
- Edmonds, J. 110, 115
- Edmonds, R.L. 51, 128,
 164
- Edwards, S.F. 275
- Edwards, S.R. 128
- Eele, G. 213
- Eggert, R.G. 241
- Ehrlich, A.H. 18, 20, 48,
 129, 213
- Ehrlich, P. 224
- Ehrlich, P.R. 7, 8, 20, 48,
 55, 102, 112, 128,
 164, 213, 241, 280
- Eigen, J. 262
- Einarsson, N. 214
- Eisenbud, M. 163
- Eisenfeld, S. 118, 252
- Eisner, R. 79
- Eisner, T. 129, 241
- Ekins, P. 20, 51
- El-Ashry, M.T. 51
- El-Hadi, M. 186
- El-Haq, M. 67
- El-Hassen, 186
- El-Hinnawi, E. 73, 164,
 231
- El-Kholy, O.A. 73, 167,
 231
- El-Moghraby, A.I. 180
- El-Sammani, M.O. 186
- El-Sarafy, S. 54, 79, 102
- El-Seed, M.T. 180
- El-Shafie, M.A. 50, 241
- Eldridge, N.20
- Elkington, J. 41
- Ellen, R. 7, 51, 102
- Ellen, R.F. 21
- Elliott, G.K. 129
- Elliott, J.A. 51
- Elliot, R. 276
- Ellis, J.E. 129
- Elsom, D. 264
- Elsom, D.M. 171
- Eltringham, S. 129
- Elz, D. 245
- Ember, C.R. 21
- Ember, M. 21
- Emel, J. 146
- Emery, K.O. 51
- Emmel, T.C. 7
- Enama, M.T. 21
- Engel, J.G. 276
- Engel, J.R. 276
- Engelman, R. 129
- England, R.W. 242
- Epstein, E.J. 264
- Erbaugh, J.M. 245
- Erickson, C.L. 242
- Ernste, H. 36
- Ervin, D. 21
- Eskeland, G.S. 264
- Esty, D.C. 51
- Evans, J. 247
- Evenson, R.E. 129
- Evernden, L.L.N. 276
- Ewert, A.W. 242
- Eyre, L.A. 129
- Eyre, S.R. 102, 115
- Ezcurra, E. 164
- Faber, D.** 51
- Faber, M. 79
- Fairfax, S. 103
- Faiz, A. 74
- Falk, J. 171
- Falkenmark, M. 121, 129,
 130, 164, 235
- Fallon, L.A. 49, 212
- Falloux, F. 264
- Fan, Zhijie 51
- Fankhauser, S. 66
- Farber, S. 214
- Faria, V.E. 186
- Farnsworth, N.R. 148
- Farrell, J.C. 121
- Farvar, M.T. 52
- Fearnside, P.M. 130, 131,
 242
- Federovisky, S. 186
- Feenstra, J.F. 80
- Feeny, D. 21, 102, 131
- Feige, E.L. 102
- Feinberg, J. 276
- Ferguson, B.W. 266
- Ferkiss, V. 21
- Ferre, F. 276
- Ferry, L. 276
- Fesharaki, F. 118, 242
- Feyerabend, G.B. 225
- Ffolliott, P. 237
- Field, B. 77
- Field, D.R. 21
- Findley, S.E. 186
- Finger, M. 47, 209, 214
- Firebaugh, G. 52
- Firey, W. 21, 102
- Firor, J.W. 171
- Fisher, A. 11
- Fisher, A.C. 21, 79, 102
- Fisher, G. 55
- Fisher, J. 214
- Fisher, S.G. 126
- Fisher, W.H. 52
- Fishwick, R. 121
- Fisunoglu, M. 131
- Fitzsimmons, A.K. 139
- Flavelle, A. 257
- Flavin, C. 67, 69, 77, 115,
 163, 208, 237, 242,
 243, 263, 264
- Flouzat, G. 79
- Fogel, R.W. 21
- Foley, G. 115, 129
- Foley, R. 36
- Folke, C. 11, 42, 134, 248
- Fontes, J. 79

Author Index

- Food and Agriculture
 Organization of the
 United Nations 79,
 110, 111, 131
Force, J.E. 104, 105
Ford, R. 131
Fortmann, L. 103, 125,
 131
Foster, J.B. 21, 52, 164
Foweraker, J. 133
Fowler, C. 21
Fox, E.A. 79
Fox, J. 257
Fox, J.J. 243
Fox, W. 276
Foy, G. 52
France, W. 264
Francis, J.G. 103
Frank, J.D. 214
Frank, P.W. 21
Franke, R.W. 180
Frankel, C. 276
Franklin, J.F. 243
Fratkin, E. 180
Frederick, K.D. 115, 131,
 164
Frederickson, H.D. 243
Freeberne, M. 243
Freedman, B. 7, 164
Freedman, S.M. 255
Freeman, J. 21
French, D. 131, 243
French, H. 214
French, H.F. 52, 164, 265
Frenkel, S. 21, 24
Freundenburg, W.R. 22,
 103
Freundenberger, M.S. 243
Frey, R.S. 186
Fri, R.W. 115, 214, 240
Frickel, S. 103
Friedmann, J. 214
Frisbie, W.P. 22, 33
Frombrun, Jr. 22
Frosch, R.A. 214
Fuchs, R.J. 186
Fullen, M.A. 180, 265
Fuller, R. 52
Fumento, M. 274
Funtowicz, S.O. 22, 78,
 79
Gadgil, A. 243
Gadgil, M. 22, 52, 132,
 243, 275
Gaitskell, A. 111
Gale, R.P. 103
Gallopín, G.C. 22, 52, 80
Galloway, J. 166
Galloway, J.N. 171
Galloway, P.R. 171
Gallup, A.M. 50, 79
Gallup, G.H. 50, 79
Gammelsrød, T. 244
Gao, Ling 259
Garcia-Barrios, L. 52
Garcia-Barrios, R. 52
Garcia-Downing, C. 128
Garkovich, L. 23
Gasser, H.-P. 214
Gastellu-Etchegorry, J.P.
 79
Gaston, K.J. 80
Gedicks, A. 103, 214
Geertz, C. 52, 132
Geisler, C. 103
Geisse, G. 187
Gell-Mann, M. 7
Geller, H. 244
Geller, H.S. 115
Geores, M. 123
George, G. 69, 119
George, S. 236
Georgescu-Roegen, N. 7,
 52, 103
Geyer, R.A. 271
Ghatak, S. 244
Ghee, L.T. 52, 132
Ghose, A.K. 187
Ghosh, P.K. 52
Giampietro, M. 52, 132
Giardino, J.R. 43
Gibbons, J.H. 244
Gibbs, J.P. 22, 52, 80, 103
Giddens, A. 22
Gilbert, A. 187
Gilbert, A.G. 187
Gilbert, A.J. 80
Gilchrist, R. 281
Gilland, B. 52, 132
Gillis, M. 144, 244
Girardet, H. 265
Girma, M. 265
Githinji, M. 244
Gittleman, J.L. 143
Glaeser, B. 53
Glantz, M.H. 171, 180,
 181, 265
Glaeser, J. 272
Glasser, H. 276
Gleave, B. 132
Glenn, A.S. 128
Gleick, P.H. 53, 111, 116,
 132, 133, 172
Glickman, T.S. 80
Gliessman, S. 11
Godoy, R. 244
Godoy, R.A. 133
Goeller, H.E. 111
Goklany, I.M. 172
Golan, E.H. 53
Gold, M.A. 87, 153
Goldberg, E.D. 133
Goldemberg, J. 53, 116,
 244
Goldin, I. 22
Golding, D. 10
Goldman, C. 246
Goldmark, Jr., P.C. 244
Goldsmith, G.W. 65
Goldstein, S. 186
Goldstone, J.A. 22, 53
Golitsyn, G. 215
Golitsyn, G.S. 171
Golley, F.B. 7, 23

- Goodin, R.E. 276
 Goodland, R. 23, 48, 53, 54, 212, 248, 276
 Goodland, R.A. 60
 Goodland, R.E. 48, 54, 212
 Goodland, R.J. 8
 Goodland, R.J.A. 245
 Goodman, D. 54, 68, 133, 144
 Goodman, G.T. 50
 Gordon, A. 54
 Gordon, W.G. 133
 Gore, A. 54, 164, 215
 Goreau, T.J. 133
 Gorey, M.L. 23
 Gorse, J.E. 180
 Gotz, A.S. 127
 Goucher, C.L. 133
 Goudie, A. 80
 Goul Thomsen, M. 80
 Gould, K.A. 35, 107
 Gould, M.S. 245
 Gould, W. 133
 Gordon, A. 54
 Goulet, D. 276
 Gow, D. 245
 Gowdy, J. 23
 Gradus, Y. 181
 Graedel, T. 7, 23, 265
 Graedel, T.E. 171
 Graham-Smith, F. 54
 Grainger, A. 133, 181, 245
 Gramling, R. 22
 Gray, C.B. 215
 Gray, D.B. 23
 Gray, V. 29
 Green, C.P. 54
 Green, G.C. 236
 Green, J.C. 23
 Greenland, D. 80
 Greenwald, R. 226
 Greer, T. 128
 Gregersen, H. 237, 245, 256
 Gregg, J. 118, 252
 Gregori, T.R. 101
 Greider, T. 23
 Grene, M. 20
 Gribbin, J. 171
 Gribbin, J.R. 172
 Grief, A. 23
 Griefahn, M. 215
 Griffin, C.C. 43
 Griffin, K. 186
 Griffiths, C. 48, 127
 Grigg, D. 133
 Grimes, A. 133
 Grim, N.B. 126
 Grindle, M.S. 134
 Grip, H. 142
 Groble, R.L. 246
 Groenewegen, J. 54
 Grohs, F. 40
 Grösser, J.R. 164
 Grossman, G.M. 54, 165
 Grossman, L.S. 54, 134
 Grove, R. 234
 Grove-White, R. 23, 215
 Grubb, M. 215, 265, 269
 Grübler, A. 54
 Grundmann, R. 23
 Grunwald, J. 111
 Grupp, S.E. 107
 Grut, M. 256
 Gruttner, D.E. 238
 Grzymala-Busse, J.W. 80, 172
 Gudynas, E. 276
 Guess, G.M. 134
 Gugler, J. 186, 187
 Guha, F. 52
 Guha, R. 22, 23, 245, 277
 Guijt, I. 253
 Guiman, P. 22, 52
 Guimarães, R.P. 215
 Gulhati, K. 215
 Gunn, J.D. 23, 80, 172
 Guppy, N. 134
 Gurgulino de Souza, H. 215
 Gurr, T.R. 103
 Gurtov, M. 23
 Gutan, P. 22
 Guth, J.L. 23
 Gutman, P.S. 134
 Gwin, H.L. 244
 Gwynne, R.N. 187
Haarmann, V. 58
 Haas, P.M. 11, 215, 265
 Haavelmo, T. 54
 Hackel, J.D. 245
 Hadiwinoto, S. 187
 Hagelgans, V. 164
 Hagenstein, P. 134
 Hagerty, S. 216
 Haglund, D.G. 116
 Hægvar, S. 23, 216, 265, 277
 Haigh, M. 264
 Halhead, V. 134
 Hall, A.L. 54, 134, 245
 Hall, C.A.S. 23
 Hall, C.W. 143
 Hall, D.C. 80, 103
 Hall, D.O. 254
 Hall, J.V. 80, 103
 Hallman, D.G. 277
 Halmø, D.B. 149
 Hallsworth, E.G. 245
 Hamilton, J.M. 216
 Hamilton, L.S. 134, 245
 Hamilton, S.L. 127
 Hammer, M. 57, 245
 Hammer, T. 134
 Håmsø, B. 116
 Hanham, R.Q. 150
 Hanke, S.H. 134
 Hannah, L. 7, 54, 80
 Hannan, M.T. 15, 21, 24, 32
 Hannon, B. 80

Author Index

- Hansen, A. 134
Hansen, D.O. 245
Hansen, J.E. 172
Hansen, S. 54
Hanson, J. 26
Hanson, H. 181
Hanson, M.E. 14, 77, 82,
207
Hardaway, R.M. 216
Hardin, G. 7, 24, 103
Hardjono, J. 55, 134
Hardoy, J.E. 186, 187,
188, 265
Hare, F.K. 181
Harf, J.E. 55, 101
Hargrove, E.C. 277
Harman, R. 33
Harman, W.W. 216
Harmon, R. 67
Harris, J.M. 216
Harris, M. 25
Harris, N. 188
Harrison, J. 216
Harrison, P. 55, 134
Harriss, R. 265
Hart, T. 164
Hartel, P. 276
Hartshorn, G.S. 246
Harvey, D. 25, 103
Harwell, C. 55
Hasan, S. 246
Hashmi, M.H. 164
Hauchler, I. 80
Hauser, P.M. 25
Hausler, S. 25
Hawken, P. 216
Hawkins, A.P. 45
Hawley, A.H. 7, 8, 25,
188
Hawley, R. 188
Hayami, Y. 134
Hayden, F.G. 80
Hayes, D. 116, 165, 246,
265
Hayes, R.L. 133
Haywood, I. 186
Hazelwood, P.T. 126, 260
Headrick, D.A. 25
He, Bochuan 165
He, Naihui, 249
Heal, G.M. 101
Healy, R. 41, 235
Heath, D.P. 165
Heath, R.A. 239
Heathcote, R.L. 181
Heaton, Jr., G.R. 216
Hecht, S.B. 55, 121, 128,
134, 246
Heck, W.W. 78
Hecklau, H. 55
Heckman, J. 55
Heerwagen, J.H. 277
Heidebrink, G. 41
Heilbronner, R.L. 25
Heilig, G.K. 135
Heinegg, P. 277
Heinen, J.T. 104, 220
Heise, L. 144, 253
Hellden, U. 181
Helm, D. 216
Hemming, J. 55, 135
Henderson, H. 216, 277
Henderson, H.F. 83
Hendry, P. 135
Henson, P. 216
Hentsche, T. 164
Herdendorf, M. 118, 252
Hern, W. 55
Hern, W.M. 25
Hernandez, A. 248
Herrera, R. 175
Hershkovitz, L. 246
Hiederlehner, B.R. 78
Higashi, M. 6
Higgins, B. 55
Higgins, G.M. 55
Higgins, J.D. 55
Higgins, R. 25
Hill, R.D. 246
Hill, Jr., T.E. 277
Hillier, W. 26
Hills, P. 246
Hinrichsen, D. 135
Hinterberger, F. 55
Hiram, L. 171
Hiraoka, M. 246
Hirsch, F. 55
Hirsch, P. 135, 246
Hirst, E. 246
Hitzhusen, F.J. 257
Hitzel, E. 49
Hjorth, P. 246
Hoag, D.L. 78
Hoagland, W. 116
Hoare, A.G. 80
Hoban, T.M. 216
Hodder, R.N.W. 188
Hodges, C.A. 246
Hodgson, G. 26
Hoekstra, T.W. 6
Hogan, D.J. 26
Hohenemser, C. 246
Hohmann, N. 175
Holdgate, M.W. 73, 216,
231
Holdren, J.P. 55, 116,
163, 172, 266
Holgate, L.S.H. 232
Holligan, P.M. 122
Holling, C.S. 8, 11, 26,
41, 56
Holloway, M. 56
Holmberg, J. 56, 217, 227
Holm, E. 138
Holmes, T. 107
Holmgren, P. 135
Holt, D.A. 217
Homer-Dixon, T.F. 26,
56, 103, 217
Homewood, K. 135
Honnold, J.A. 251
Hoque, M.N. 31
Horkeby, I. 265
Horowitz, B. 146
Horowitz, M.M. 138

- Hosier, R.H. 135
Hossain, K. 247
Hossain, M. 26
Hough, J. 121
Houghton, R.A. 86, 164, 172, 177
House, R.J. 35, 37
Housman, R.F. 76
Howard, M.C. 56
Howard, T. 175
Howarth, R.B. 32, 56, 80, 83, 223, 277, 279
Howe, C.W. 247
Hoy, D.R. 56
Hoyle, R. 116, 135, 173
Hrabovszky, J.P. 135
Huang, Ju-Chin 85
Hubbard, F.P. 277
Hudson, J.R. 26
Hueting, R. 26, 56, 73, 81
Hufschmidt, M. 78
Huggett, R.J. 135
Hugo, G.J. 188
Hulme, M. 173, 181
Humphrey, C.R. 26, 56, 103, 116, 136
Humphries, S. 247
Hundmer, J.W. 50
Hunker, H.L. 103
Huo, Y.P. 15
Huppenbauer, M. 26
Huq, S. 57
Hurrell, A. 217, 247
Hurst, C. 247
Hurst, P. 57
Hurth, H.P. 116
Husar, J.D. 165
Husar, R.B. 165
Hutchinson, C. 7, 54, 80
Hyman, E.L. 247
Hyndman, D. 217
- Ibrahim, F.** 136
Iglesias, E.V. 57
Imber, M. 217
- Independent Commission
on International
Humanitarian Issues
136
Ingold, T. 26
Ingkasuwan, P. 41
Ingram, H.M. 104
Inhaber, H. 81
Intergovernmental Panel
on Climate Change
266
International Institute for
Environment and
Development 81, 111,
116, 120, 136
International Meetings on
More Effective
Development
Indicators 81
International Union for the
Conservation of
Nature 217
Isai, J.Y. 77
Ives, J. 136
Ives, J.D. 57
Ivory, M. 217
Izac, A-M.N. 81
Izzi Deen, M.Y. 277
- Jacks, B.** 181
Jackson, C. 57, 217
Jackson, D. 277
Jackson, J.H. 57
Jackson, W. 37
Jacob, M. 26, 57
Jacob, M.J. 181
Jacobs, M. 27
Jacobson, J. 185, 218
Jacobson, J.L. 57, 208,
266
Jaeger, C.C. 27
Jaffé, P. 167
Jaffee, D. 104
Jager, J. 173
Jahnige, P. 133
- James, C. 136
James, D.E. 57, 240, 241
Jansson, A. 218
Jansson, A.M. 57, 245
Jansson, B.-O. 11, 41, 245
Jansson, M. 139, 215
Jardim, M.A.G. 234
Jarosz, L. 136
Jasanoff, S. 218
Jayasuriya, S. 127, 180
Jazairy, I. 188
Jeffreys, K. 247
Jenkins, A. 192
Jensen, J. 81
Jentoft, S. 122
Jesinghaus, J. 231
Jha, S.C. 57
Jhirad, D. 247
Jiang, Zhenping 116
Jimenez, E. 264
Jimenez, J. 85
Jinchang, Li. 67
Jodha, N. 57
Jodha, N.S. 266
Johansson, P.-O. 81
Johansson, T.B. 244
Johansson, T.B. 116
John, D.M. 277
Johnels, A. 218
Johnson, D.G. 136
Johnson, D.H. 58
Johnson, M.H. 111
Johnson, S.P. 218
Johnson, W.A. 247
Jolly, A. 266
Jolly, C.L. 27, 136
Joly, L.G. 136
Jones, A. 27
Jones, G. 58
Jones, G.W. 186
Jones, H.L. 143
Jones, J. 137, 247
Jones, J.D. 263
Jones, W.O. 58
Joss, P.J. 137

Author Index

- Ju-Chin, Huang 85
Juda, L. 58
Juma, C. 218
- Kahane, A.** 117
Kaji, G. 58
Kakonen, J. 27
Kalof, L. 78
Kamienicki, S. 247
Kam-Kong, F. 282
Kammen, D.M. 117
Kane, H. 45, 58, 77, 165
Kannan, K. 173
Kanowski, P.J. 247
Kapitza, S.P. 215
Karavaeva, N.A. 162
Karekezi, S. 117, 248
Karim, Z. 139
Karlner, J. 58
Karshenas, M. 58
Kasarda, J.D. 13, 22, 27, 188, 189, 190, 191
Kasperson, J.X. 10
Kasperson, R.E. 10, 163
Kassam, A.H. 55
Kassas, M. 179, 181
Kassiola, J.J. 218
Katcher, A. 277
Kates, J.F. 10
Kates, R. 58, 181
Kates, R.W. 12, 15, 16, 25, 30, 34, 138, 143, 144, 145, 146, 151, 162, 163, 164, 165, 166, 167, 168, 172, 173, 176, 180, 185
Kats, G. 248
Kautsky, N. 162
Kealey, D.A. 278
Keating, K.M. 34, 118
Kebbede, G. 181
Keeney, D.R. 27
Kellenberg, J. 53
Kellert, S.R. 278
Kellstedt, L.A. 23
- Kelley, A.C. 27, 58, 188
Kellogg, W.W. 173
Kelly, L.A. 236
Kemp, G. 104
Kemph, G.S. 248
Kempton, W. 207, 276
Kendall, H.W. 137
Kennedy, P.M. 80
Kent, G. 248
Kentor, J. 188
Keohane, R.O. 215
Keyfitz, N. 27, 58, 59, 104, 218
Khalifa, A.M. 188
Kibreab, G. 59
Kim, H.H. 266
Kim, O. 59
Kimball, L. 44, 218
Kimball, L.A. 218
Kincaid, J. 104
Kindler, J. 138
King, J. 84, 85, 117, 218
King, K. 268
Kingsbury, B. 217
Kingsley, G.T. 266
Kirchner, J.W. 8
Kirdar, Ü. 57, 59, 72, 73, 175, 190, 205, 211, 213, 215, 216, 223, 226, 228, 231, 232
Kirkby, J. 59
Kirkby, R.J.R. 188
Karim, Z. 139
Kismadi, M.S. 218
Kitchell, J.F. 126
Klausner, S.Z. 27, 104
Klee, G.A. 111
Klein, R.M. 137
Kleinart, C. 137
Kleinman, D. 27, 59
Kline-Cole, R.A. 137
Knapp, G. 59
Kneese, A.V. 11, 104, 205, 278
Knight, R.L. 248
- Koch, G.W. 174
Koekok, D.A. 278
Kogiku, K.C. 41
Kohli, K.N. 59
Ko, J.-Y. 23
Koch, M. 215
Kolsstad, C.D. 77
Komer, D.I. 142, 250
Komin, S. 59
Komor, P. 235
Kong, Fanwen 249
Kong, L. 188
Kononov, Y. 266
Kooi, C.F. 248
Kopp, R.J. 59, 81
Koput, K.W. 33
Koronkevic, N.I. 138
Korten, D.C. 219
Korten, F.F. 248
Korula, A.R. 229
Kosmo, M. 248
Kothari, R. 278
Kottak, C. P. 219
Kou, Youguan 139
Kovda, V.A. 181
Kowarick, L. 189
Kozloff, K. 248
Kox, H.L.M. 248
Krafer, L. 165
Kraft, M.E. 28, 219, 231
Kramer, R. 81, 256
Krapels, E.N. 117
Krauss, I. 28
Kreuter, U.P. 137
Krol, M. 270
Krueger, A.B. 54, 165
Krüger, F. 124
Krupnick, A.J. 81
Krutilla, J.V. 108
Kuik, O. 81
Kumar, J. 137
Kumar, N. 59
Kummer, K. 266
Kungskulniti, N. 189
Kurian, G.T. 81

- Kutzbach, J.E. 173
- Laarman, J.G. 137**
- Labys, W. 255
- Lacy, C. 81
- Lambert, T. 274
- LaMay, C.L. 81, 213
- Landsberg, H. 60
- Lang, A. 28
- Lang, J.M. 43
- Lang, W. 219
- Langton, N. 28
- Lankerani, L. 7, 54, 80
- Lanshof, D.A. 272
- la Rivière, J.W.M. 8, 50, 137, 213
- Larmuth, J. 181
- LaRocco, P. 244
- Larson, B. 266
- Larson, B.A. 248, 266
- Larson, E.D. 104
- Latin American and Caribbean Commission on Development and Environment 59
- Latour, B. 28
- Lawrence, E.A. 278
- Lawrence, R.J. 28
- Lawrey, S.W. 248
- Lawson, A. 213
- Lazarus, M. 118
- Lazlo, E. 28
- Le Houerou, H.N. 181
- Leach, G. 137
- Leach, M. 126
- Leavitt, G.C. 28
- Lecomber, R. 59
- Ledec, G. 8, 23, 53, 137, 248, 267
- LeDonne, P. 62
- Lee, J.A. 60
- Lee, J.K. 266
- Lee, T.H. 271
- Lee, T.R. 138, 248
- Lee, Y.-S.F. 191
- Leeds, A. 189
- Leff, E. 219
- Legault, A. 219
- Leggett, J. 173
- Le Houerou, H.N. 181
- Leighton, M. 173
- Leiss, W. 28
- Leitmann, J. 81, 185, 187, 262
- Lele, S.M. 60
- Lele, U. 60
- Lenski, G. 28, 104
- Lenssen, N. 77, 115, 117, 242, 243, 248
- Leo, M. 272
- Leonard, H.J. 43, 60, 137, 173
- Leonardson, L. 136
- LeRoy, P. 129
- Lesser, I.O. 104
- Lester, J.P. 219
- Levin, S.A. 8, 60
- Levine, M.D. 117
- Levy, M.A. 215
- Lewis, M.W. 278
- Lewis, L.A. 60, 126, 137, 162
- Lian, F.J. 162
- Liange, Baofen 118
- Li, Jinchang 67, 249
- Libby, L.W. 60
- Liebman, F. 121
- Liegerot, F. 249
- Likens, G.E. 171
- Lim, G.C. 266
- Lindahl-Kiessling, K. 59, 60
- Lindborg, N. 219
- Lindén, O. 267
- Lindh, G. 130, 181
- Lindsay, J.M. 219
- Linear, M. 60, 219
- Linn, J.F. 189, 267
- Linnemann, H. 138
- Lipietz, A. 104
- Lippit, V.D. 278
- List, M. 219
- Little, C.E. 104
- Little, P.D. 138, 181, 249
- Li, Zhou 259
- Liu, Changming 138, 249, 261
- Liu, F. 117
- Liu, X. 169
- Liverman, D. 173, 181
- Liverman, D.M. 14, 77, 82, 207
- Lo, C.P. 219
- Lo, H.M. 182
- Lockwood, J.G. 173
- Lockwood, M. 60
- Lodwick, D.G. 32
- Logan, T.J. 182
- Loganathan, B.G. 173
- Lohmann, L. 138, 246
- Lohse, D. 7, 54, 80
- Lombardini, S. 219
- London, B. 60
- Longman, D. 81
- Loomis, S. 133
- Lopez, M.E. 249
- Lopez, R. 61
- Lopreato, J. 28
- Lorius, C. 8
- Love, T. 29
- Lovins, L.H. 267
- Lovejoy, T. 61
- Lovejoy, T.E. 143
- Loveland, T.R. 84
- Lovering, T.W. 111
- Lovins, A.B. 117, 267
- Lovring, T.S. 117
- Low, B.S. 29, 104, 220, 280
- Low, P. 61
- Lowe, M.D. 189, 267
- Lowe, P. 81, 249
- Lowe, P.D. 29
- Lowenthal, D. 29

Author Index

- Lowery, D. 29
Lowi, M.R. 138, 220
Lowry, I.S. 189
Lubchenco, J. 74, 241
Lucardie, P. 19
Ludwig, J.A. 82
Lugo, A.E. 138
Luhmann, N. 29
Lundin, C.G. 267
Lundqvist, J. 262
Lundy, J. 11
Lu, Shuping 267
Lusigi, W.J. 82
Luten, D.B. 29
Luthra, V. 235
Lutz, E. 61, 79, 82, 85,
98, 220, 249
Lutz, W. 29, 41, 60, 82,
138
Lutzenberger, J. 61
L'Vocich, M.I. 138
Lynch, P.W. 137
Lyon, F. 143
Lyon, R.M. 267

Mabbutt, J.A. 182
MacDonald, G. 174
MacDonald, G.J. 220
MacDonald, J. 117
MacDonald, T. 267
MacEwen, M. 249
MacGregor, I.D. 117
MacGregor, R.D. 128
Machlis, G.E. 34, 104,
105, 118
MacKellar, F.L. 111
MacNeill, J. 82, 165, 220
Maddox, J. 29
Madhab, J. 117
Magdoff, B. 121
Magrath, W. 84
Magurran, A.E. 82
Mahar, D. 138
Mahar, D.J. 8
Mahat, T. 138, 139

Mahlman, J.D. 174
Mahtab, F. 138, 139
Main, H.A.C. 127, 137
Maizels, A. 105
Maizels, J.K. 184
Major, D.C. 41
Mäler, K-G. 11, 17, 41,
44, 49, 78, 131, 143,
220
Malingreau, J.P. 139
Maletta, H. 22, 52
Malkin, J. 170
Malmer, A. 142
Malone, T. 6
Malone, T.F. 8
Maltby, E. 139
Manabe, S. 174
Mandel, R. 105, 220
Mandyach, A.F. 162
Mann, A.S. 267
Mann, D.E. 104
Mann, H.S. 183
Manners, G. 111
Manners, I.R. 111
Mannion, A.M. 61
Marchettini, N. 230
Marchetto, A. 139
Margulis, L. 9, 281
Marien, M. 61
Markandya, A. 42, 122,
252, 267
Marland, G. 271
Marshall, H. 29
Marte, J. 186
Martell, L. 29
Marten, G.G. 139
Martin, W.T. 22, 52, 103
Martine, G. 139
Martinez-Alier, J. 29, 61,
220, 268
Martinez, C.C. 133
Martinez, E.A. 252
Marton-Lefèvre, J. 50,
213
Marzluff, J.M. 128

Masakha, E.J. 135
Mashauri, D.A. 165
Mashayekhi, A. 116
Massaro, R.J. 220
Master, G. 271
Masters, C.D. 111
Mather, A.S. 139
Mathews, F. 278
Mathews, J.T. 10, 61, 165,
167, 220
Matias, F. 256
Matras, J. 29
Matson, P. 20
Matson, R. 223, 250
Mattoo, A. 221
Mattos, M.M. 139
Mauer, H. 139
Maull, H.W. 61, 105, 221
Maurice, C. 61
Maxwell, R.S. 112
Maxwell, T. 82
May, R.M. 111
Maybury-Lewis, D. 278
Mayo, A. 165
Mayumi, K. 139
Mayur, R. 165
Mazur, L. 61
Mbuna, J. 221
McAllister, D.M. 82
McAlpine, J.C. 62
McAustan, P. 189
McBean, G.A. 8
McCabe, J.T. 29
McCaffrey, S.C. 249
McCarthy, J. J. 6
McCay, B.J. 21, 29, 105
McCleary, R. 221, 278
McClintock, C. 139
McCloskey, H.J. 278
McCloskey, J.M. 82
McCloskey, M. 221
McCull, R.W. 139
McCormick, J. 174
McDade, J. 118, 252
McDowell, M. 62

- McDonald, G. 174
McDonald, M.D. 221
McElroy, M.B. 174
McGaughey, S.E. 245
McGreevey, W.P. 27, 58
McIntosh, A. 139
McIntosh, R.P. 8
McIntosh, T.L. 139
McKay, B.J. 102
McKenzie, T.M. 62
McKibben, B. 221
McLaren, D.J. 8, 62, 111
McManus, J.W. 249
McMichael, D.F. 73, 231
McNamara, K. 237
McNeely, J. 64, 216
McNeely, J.A. 249
McNeill, J.R. 140
McNicoll, G. 30, 62, 165
McNulty, M.L. 189
McPherson, M. 144
Meadows, D.H. 62, 105,
111, 112, 221
Meadows, D.L. 62, 105,
111, 112
Mearns, R. 137
Meesook, A. 62
Meffe, G.K. 8
Mehta, M.D. 30
Meier, P. 249
Meier, R.L. 268
Meinard, A.G. 37
Melone, M.A. 221
Mendelsohn, R. 30, 81,
133, 140
Mercer, D.E. 250
Merchant, C. 30, 278
Merideth, R.W. 207
Meredith, R.W. 14, 77, 82
Merrick, T.W. 62
Mertins, G. 185
Mertons, W. 62
Messerli, B. 57
Metz, J.J. 139
Metzger, D. 105
Meyer, W.B. 10, 37, 63,
112, 140, 150, 167
Meyers, S. 117, 119
Mgeni, A.S.M. 250
Micklin, M. 30, 33
Middleton, N. 221
Midgeley, M. 278
Midlarsky, M.I. 105, 221
Miewald, R. 105
Mikdashi, Z. 105
Mikesell, R. 82
Mikesell, R.F. 63, 112,
221
Milbrath, L.W. 221, 278
Miller, A. 30
Miller, F.D. 189
Miller, K. 216
Miller, K.R. 140, 254
Miller, M. 63, 152
Miller, M.A.L. 221
Miller, R.B. 8
Millikan, B.H. 140, 182
Milton, J.P. 52
Milton, K. 30
Miner, A.S. 30
Mink, S.D. 63
Mintzer, I.M. 174
Miranda, M.L. 250
Misch, A. 82
Mishan, E.J. 63
Mitchell, B. 63, 82
Mitchell, D.J. 180, 265
Mitchell, R.C. 10, 82
Mitlin, D. 187, 188, 265
Mitsch, W.J. 222
Moffett, G. 63
Mohr, E. 30
Mohrmann, J.C.J. 222
Mol, A.P.J. 31, 36
Molotch, H.L. 31
Monckenberg, F. 140
Montgomery, J.D. 222
Moody, R. 105
Moomaw, W. 174
Mooney, H.A. 9, 140, 174
Moore, III, B. 8
Moore, S. 112
Moore, T.G. 112, 174
Moore, P.F. 272
Moran, D. 121
Moran, E.F. 31, 63, 140
Moran, K. 250
Morell, D. 222
Morello, J.H. 186
Morgan, W. 105, 117
Morgan, W.B. 63, 250
Morris, R.J. 63
Morrissette, P.M. 174
Morrison, D. 81
Morrison, D.E. 105
Morrison, R.E. 213
Mortimore, M. 73, 140,
182
Mortimore, M.J. 268
Morse, C. 98, 110
Mosello, R. 139
Mosler, H-J. 31
Moss, Jr., A.H. 63
Moss, H. 222
Moss, R. 117
Moyo, S. 221
Mu, Xinming 86
Mukendi, A. 264
Mulamoottil, G. 246
Mulcahy, P. 11
Mulenex, D. 222
Mumme, S.P. 229
Munasinghe, M. 63, 64,
82, 117, 222, 250,
268
Munda, G. 222
Mungatana, E.D. 83
Munn, R.E. 73, 210, 222,
231
Muñoz, H. 44, 64, 222
Munson, A. 215
Munster, M.J. 78
Murdoch, J. 31
Murdock, S.H. 11, 31, 98
Murphey, R. 189

Author Index

- Murphy, B. 121
 Murphy, R. 31
 Murphy, S.D. 268
 Murray, D.L. 165
 Murray, J. 268
 Murray, J.W. Jr. 6
 Murton, B.J. 112
 Muscat, R. 8
 Muul, I. 250
 Myers, J.G. 110
 Myers, N. 64, 140, 141, 165, 166, 222, 223, 243, 250, 268
- Nabhan, G.P.** 279
 Nadel, S. 244
 Naess, A. 31, 279
 Naff, T. 141, 223, 250
 Nagpaul, H. 189
 Naiken, L. 55
 Naigh, N. 223
 Nair, P.K.R. 250
 Namboodiri, K. 31
 Nash, L. 141, 166
 Nash, R.F. 279
 Nash, C. 268
 Nash, J.A. 279
 Nath, U.R. 223
 Nations, J.D. 141, 142, 235, 250
 National Academy of Sciences 174, 182, 268
 National Conditions Investigation Group, Chinese Academy of Sciences 64
 National Research Council 105, 170
 Nauser, M. 31, 36
 Neher, D.A. 78
 Neill, D. 133
 Neilson, D.L. 220
 Nellesmann, C. 80
- Nelson, J.G. 31, 142
 Nelson, K. 268
 Nelson, L. 142
 Nelson, L.D. 251
 Nelson, R. 182, 279
 Nemeth, R.J. 106
 Nerlove, M. 31
 Ness, G. 32
 Ness, G.D. 13, 32, 64, 87, 142, 207
 Netting, R.M. 142
 Newcomb, K.J. 251
 Newell, R.E. 174
 Newland, K. 65, 189, 223
 Newman, K. 142
 Nhira, C. 125
 Nibbering, J.W. 142
 Nichol, J.E. 127, 137
 Nielsen, F. 32
 Niemczynowicz, J. 268
 Nientied, P. 268
 Niggli, P. 127, 239
 Nijkamp, P. 57, 83, 106, 205, 222, 223
 Nilsson, S. 148
 Nitze, W.A. 223
 Njiti, C.F. 223, 251
 Njoka, B. 83
 Nobel, C. 223
 Nogueira, J.M. 241
 Noin, D. 65
 Nolan, P.D. 28, 32
 Norberg-Bohm, V. 265
 Nordhaus, W.D. 32, 65, 106, 118, 174, 175, 268, 269
 Norgaard, R. 223
 Norgaard, R.B. 32, 56, 65, 80, 83, 106, 112, 121, 223, 251, 277, 279
 Norman, C. 223, 237
 Norse, D. 136
 North, R.C. 17, 47, 106, 209
 North, R.D. 32
- Norton, B. 142
 Norton, B.G. 224, 251, 279
 Nossiter, B.D. 224
 Novaes, F.C. 166
 Novrud, S. 83
 Nowell, C. 35
 Nriagu, J. 166
 Nugent, S. 251
 Nwoke, C.N. 106
 Nyerges, A.E. 142, 269
 Nykvist, N. 142
- O'Brien, M.** 14, 209
 O'Brien, P.J. 65
 O'Connor, J. 32
 O'Dell, P.R. 118
 O'Keefe, P. 59, 118
 O'Leary, M. 182
 O'Neill, J. 224, 280
 O'Neill, R.V. 85, 142, 176
 O'Riordan, T. 50, 224
 Oates, D. 279
 Oates, W.E. 48, 206
 Oaxaca 251
 Obasi, G.O.P. 175
 Obdrzalek, M. 251
 Oberai, A.S. 189
 Öberg, S. 80
 Odemerho, F.O. 239
 Oelschlaeger, M. 279
 Oeschger, H. 8
 Office of Technology Assessment 251
 Ofreneo, R.E. 65
 Ohtsuka, R. 65
 Okafor, F. 142
 O'Keefe, P. 221
 Okoth-Ogendo, H.W.O. 65, 123
 Olander, L. 118, 252
 Oldfield, M.L. 142
 Oliveira, A.E. 166
 Oliver, C. 12
 Olpadwala, P. 65

- Olsen, M.E. 32
 Olson, S. 65
 Olsson, L. 182
 Omari, C.K. 279
 Ominami, C. 65
 Omono-Fadaka, J. 280
 Onthank, K. 133
 Ooi, Jin Bee 179
 Opachoor, J.B. 57
 Openshaw, K. 147
 Ophuls, W. 32, 65, 224
 Opotow, S. 280
 Oppenheimer, M. 175
 Opschoor, J.B. 219
 Orbuch, P. 76
 Orenstein, R.E. 280
 O'Riordan, T. 213, 224, 249
 Organization for
 Economic
 Cooperation and
 Development 112,
 118, 269
 Orians, G.H. 32, 277
 Orlav, D.S. 145
 Orlovsky, N.S. 181
 Ornstein, R. 224
 Orr, D.W. 32, 175, 280
 Ortalo-Magne, F. 69
 Ortiz, E. 70
 Osenobo, G.J. 142
 Ostrom, E. 34
 Ostrum, E. 106
 Ouellet, E. 30
 Ozawa, C. 230
Paarlberg, R.L. 106
 Pacenza, M. 33, 67
 Padoch, C. 251
 Paehlke, R. 280
 Page, T. 33, 280
 Pagiola, S. 249
 Painuly, J.P. 175
 Painter, M. 66
 Palakovich, S. 227
 Pallemarts, M. 224
 Palloni, A. 142
 Palmer, G. 224
 Palmer, J. 251
 Palmer, J.R. 247
 Pan Jiahua 251
 Panandiker, P. 223
 Panayotou, T. 66, 224
 Pandey, D.K. 252
 Pannell, C.W. 150
 Parham, W. 252
 Parikh, J.K. 175
 Park, C. 224
 Parkes, A.S. 66
 Parmentier, R. 269
 Parnwell, M.J.G. 66
 Parry, M.L. 171, 176
 Parsons, H.L. 33
 Parsons, J. 224
 Partridge, W.L. 146
 Passmore, J. 280
 Paton, B. 269
 Patterson, M. 269
 Pauchri, P.K. 116
 Peach, W.N. 106
 Peakall, D.B. 83
 Pearce, A.J. 134, 245
 Pearce, D. 33, 66, 216,
 224, 252
 Pearce, D.W. 66, 83, 225,
 252, 269
 Pearl, M.C. 232
 Pearson, C.S. 66
 Pearson, H.A. 128
 Peasant Solidarity Group
 of Quiatoni 252
 Pecarsky, J. 33, 67
 Peet, J. 66, 118
 Peluso, N.L. 252
 Pendakur, V.S. 189
 Penz, G.P. 66
 Pepper, D. 33
 Perkins, D.H. 143
 Perkins, T.D. 137
 Perlack, R.D. 118, 175,
 252
 Perlman, J.E. 190
 Perlman, J. 106
 Perlman, R. 101, 210
 Perna, Del Mar E. 186
 Perna, E.M. 57, 190
 Perrings, C. 11, 17, 33,
 41, 66, 131, 143, 219,
 225, 243, 244
 Perritt, R.W. 166
 Peskin, H.M. 83
 Peter, F.M. 151
 Peters, R.H. 83
 Peters, R.L. 143, 175
 Peterson, F.M. 21
 Peterson, T. 33
 Peterson, U. 112
 Petesch, P.L. 232
 Pezzey, J. 33, 83, 225
 Pezzoli, K. 190
 Phantumvanit, A.D. 41
 Phillips-Howard, K.D.
 143
 Pickett, S.T.A. 143
 Piddington, K. 225
 Piel, G. 9
 Pierce Colfer, C.J. 143
 Pierce, L.L. 84
 Pietila, H. 280
 Pillet, G. 33, 42
 Pimentel, D. 11, 33, 41,
 52, 66, 67, 118, 132,
 136, 143, 182, 252
 Pimentel, M. 33, 67
 Pimm, S.L. 9, 143
 Pindyck, R.S. 252
 Pineda-Ofreneo, R. 67
 Pingali, P.L. 143
 Pirages, D. 67, 112, 118,
 143
 Pirages, D.C. 112, 225
 Plant, C. 225
 Platt, J. 225

Author Index

- Plucknett, D.L. 148, 252, 257
Plumwood, V. 143, 280
Podger, N. 257
Poffenberger, M. 252, 253
Polasky, S. 106
Pollack, H.N. 83
Pollock, C. 243, 269
Polunin, N. 8
Pomerory, L.R. 9
Ponting, C. 67, 83
Porras, I. M. 225
Portararo, R.V. 150
Porter, G. 67, 207, 225
Posner, J. 144
Post, J. C. 245
Postel, S. 67, 83, 144, 163, 208, 243, 253, 263, 269
Poston, D.L. 22, 33, 80
Poterba, J.M. 269
Potter, D. 225
Potter, L. 144, 162
Potter, R.B. 190
Power, A.G. 45
Poznanski, J. 222
Praderie, F. 50, 213
Prage, L. 206
Prance, G.T. 144
Prasad, S.S.R. 237
Prasodjo, S. 257
Pratt, J.R. 163
Preisendörder, P. 14
Prescott-Allen, C. 144
Prescott-Allen, R. 144
Preston, S. 67
Pretty, J. 253
Price, B. 34
Priester, M. 164
Prinn, R.G. 175
Prins, G. 225
Proctor, J. 144, 253
Pronk, J. 67
Proops, J.L.R. 79
Prosterman, R.L. 144
Provencher, B. 253
Pryde, P.R. 253
Psenner, R. 139
Pulket, C. 189
Pulliam, H.R. 166, 253
Puntasen, A. 68
Punyasavatsut, C. 67
Putman, R.J. 9
Pye-Smith, C. 225
Qassim, R.Y. 162
Qiang, Binghuan 270
Qing, Dai 254
Qiu, Daxiong 118
Qu, Geping 67, 254, 270
Quiggin, J. 106
Qutub, S.A. 190
Raffauf, R.F. 146
Ragin, C.C. 67
Rajagukguk, E. 254
Ramada, K. 278
Ramakrishnan, P.S. 68
Ramankutty, R. 207
Ramberg, L. 254
Rambler, M.B. 9
Ramos-Miranda, J. 49
Randall, S. 68
Randers, J. 62, 105, 111, 112, 225
Rangan, H. 214, 226
Ranganathan, J. 78
Rasinski, K.A. 280
Rask, K. 118
Raskin, P. 118
Rasmuson, M. 118
Rathjens, G.W. 56, 175
Rathor, B.M.S. 235
Ratick, S.J. 10
Rauscher, M. 226
Ravallion, M. 83
Raven, P.H. 121, 144
Ravetz, J.R. 22, 78, 79
Ravindranath, N.H. 254
Raymond, S.W. 163
Rayner, S. 15
Razavi, H. 116, 118
Reardon, C. 254
Reardon, T. 68
Redclift, M. 34, 54, 68, 133, 144, 226
Reddy, A.K.N. 116, 118, 244
Redford, K.H. 145, 254
Reed, D. 68, 226
Rees, C. 34
Rees, C.P. 68
Rawlins, S.L. 217
Rees, J. 34, 83, 106, 112, 118, 226, 270
Rees, W.E. 68
Reeves, E. 36
Regan, M. 250
Regan, T. 280
Regens, J.L. 175
Regier, H.A. 83
Reiche, C. 249, 254
Reichert, D. 280
Reichle, Jr., H.G. 174
Reid, D. 68
Reid, L. 9
Reid, W.V. 140, 254
Reilly, J. 175
Reining, P. 84, 182
Remigo, A.A. 254
Renaud, B. 270
Renner, M. 68, 69, 226, 254, 270
Renwick, H.L. 101
Renwick, W.H. 101
Repetto, R. 69, 84, 85, 106, 107, 108, 112, 118, 135, 144, 168, 182, 213, 216, 226, 244, 254
Rester, R. 9
Restrepo, I. 145
Revelle, R. 145
Reyna, S. 128, 180
Reynolds, J.F. 82

- Rhind, D. 84
 Ribot, J.C. 254
 Rice, R. 257
 Rice, R.C. 145
 Rich, B. 226
 Richards, D.J. 205
 Richards, J.F. 10, 12, 15,
 16, 25, 29, 30, 34,
 126, 131, 133, 137,
 138, 143, 144, 145,
 146, 150, 151, 162,
 163, 164, 165, 166,
 167, 172, 173, 176,
 180, 184, 185
 Richards, P. 255
 Richardson, E.L. 270
 Richardson, H.W. 185,
 190, 270
 Richels, R.G. 267
 Richerson, P.J. 13, 34
 Richley, J.E. 255
 Richmond, A. 182
 Rideout, V.C. 84
 Ridker, R.G. 112
 Ridley, M. 280
 Riebsame, W. 272
 Riede, K. 145
 Riedinger, J.M. 144
 Rietveld, P. 222
 Rifkin, J. 175
 Rigg, J. 69, 145
 Risser, P.G. 84
 Rittberger, V. 219
 Rivkin, D.B. 215
 Roan, S.L. 175
 Robbins, J.G. 226
 Roberts, B.R. 190
 Roberts, J. 118, 252
 Roberts, J.T. 69
 Robins, N. 166
 Robinson, J.B. 84
 Robinson, J.G. 145, 254
 Robinson, N.A. 226
 Robinson, W. 145
 Ro, C.H. 190
 Rockstrom, J. 264
 Rodhe, H. 175
 Rodhe, H. 166
 Rodrigues, O.A. 255
 Roe, T.L. 207
 Rogers, P. 146
 Rogers, P.P. 145
 Rojas, M. 255
 Rolston, III, H. 281
 Romashkevich, A.I. 162
 Romm, J.J. 69, 226
 Rondinelli, D.A. 190, 191,
 270
 Roodman, D.M. 248
 Root, D.H. 111
 Root, T.L. 84, 176
 Røpke, I. 69
 Rosa, E.A. 34, 118
 Rose, A. 255
 Rose, G. 255
 Rosenberg, D.B. 255
 Rosenberg, N.J. 174, 239,
 270
 Rosenberg, R. 55, 64
 Rosenblum, M. 69
 Rosenfeld, A.H. 271
 Rosenzweig, C. 176
 Rosin, T.R. 145
 Ross, J.E. 107
 Ross, L. 226, 249, 255,
 270
 Ross, L.G. 236
 Ross, M. 176
 Rossini, F. 84
 Roszak, T. 281
 Roth, R.E. 255
 Rothenberg, D. 31, 34,
 279
 Rotmans, J. 270
 Roughgarden, J. 7, 227
 Routley, R. 143, 281
 Routley, V. 281
 Rowe, R. 145, 147, 256
 Rowlands, I.H. 227
 Rowley, J. 227
 Roy, J. 42
 Roy, S.K. 255
 Rozanov, B.G. 145
 Rubin, E.S. 271
 Rubin, S.M. 227
 Rubio, S.J. 107
 Ruckelshaus, W.D. 227
 Ruckelshaus, W.E. 227
 Rudel, T.K. 69, 146
 Rudig, W. 29
 Rudman, A.I. 73
 Rumani, K.V. 69, 119
 Runge, C.F. 69, 107, 259
 Running, S.W. 84
 Rush, J. 69
 Russell, G.J. 143
 Russell, M. 118, 252
 Russell, S.S. 73
 Russell, W.M.S. 146
 Ruth, M. 34
 Ruttan, V. 146
 Ruttan, V.W. 34, 146, 255
 Ryan, J.C. 253, 256
 Ryan, M. 69
 Ryan, T. 227
 Rycroft, R.W. 175, 227
 Ryder, R. 146
 Ryle, M. 34
Sabatini, F. 187
 Saborio Trejos, V.V. 170
 Sachs, A. 261
 Sachs, I. 69, 191
 Sachs, W. 69
 Sack, R.D. 34
 Sagan, D. 281
 Sagasti, F.R. 69
 Sagoff, M. 107, 218, 281
 Salati, E. 146, 166
 Salazar, D.J. 107
 Salleh, A.K. 281
 Saltiel, J. 227
 Sampath, R.K. 256
 Samra, J.S. 235
 Sanasarian, E. 247

Author Index

- Sand, P.H. 227
Sandbrook, R. 225
Sandell, C. 142
Sanderson, S.E. 70
Sanderson, S.K. 34
Sandford, R. 227
Sandford, S. 256
Sands, P. 228
Sanger, C. 256
Santos, I.M. 256
Santos, M.A. 34
Sapsford, D. 105
Sargent, C. 146
Sarkesian, S.C. 70
Sarukhan, J. 121
Sasaki, M. 18
Sathaye, J. 118
Satterthwaite, D. 187, 188, 265
Savill, P.S. 247
Saxena, N.C. 256
Sayalath, P. 119
Schallau, C.H. 34
Schelling, T.C. 176
Scherr, S.J. 228
Schipper, L. 117, 119
Schlager, E. 34
Schlesinger, W.H. 166, 169
Schmandt, J. 176
Schmidt, R. 138
Schmink, M. 70, 146
Schmitt, R.L. 107
Schnaiberg, A. 34, 35, 107, 228
Schneider, S.H. 17, 84, 176
Schnoor, J. 166
Schnore, L.F. 19
Schoenbaum, T.J. 70
Schor, J.B. 228
Schramm, G. 166, 235, 256
Schrenders, W. 54
Schteingart, M. 191
Schubart, H.O.R. 166
Schulman, M.D. 103
Schultes, R.E. 146
Schulz, A. 182
Schulze, E.-D. 9
Schumann, D.A. 146
Schutjer, W. 145
Schware, R. 173
Schwartzman, S. 256
Schwarz, H.E. 146
Schworm, W.E. 107
Scimemi, G. 228
Scoones, I. 253, 258
Scott, M.F. 122
Scott, M.J. 270
Scura, L.F. 241
Searl, M.F. 113
Sedjo, R.A. 112, 147, 239
Segura, O. 49
Seligman, C. 281
Seller, W. 174
Sellers, S. 147
Selvaratnam, S. 191
Sen, G. 70
Sene, A. 182
Serafin, R. 31, 142
Serbin, A. 70
Sere, C. 147
Serôa da Motta, R. 84
Serr^o, E.A. 271
Sersale di Cerisano, R.C. 70
Sessay, M. 123, 179
Sessions, G. 35, 275
Seventy-Seventh American Assembly 228
Seymour, R.J. 271
Shafer, M. 119
Shafik, N. 70
Shah, A. 266
Shah, M. 55
Sharbaugh, H.R. 119
Sharma, N.P. 145, 147, 256
Sharp, R. 228
Sharpe, D.M. 223, 251
Shatz, J. 227
Shaw, P. 208
Shaw, R.P. 70, 166
Shea, C.P. 271
Shearer, W. 64
Shearman, R. 281
Sheehan, H.E. 166
Sheehy, D.P. 182
Shen, Dajun, 249
Shen, Z. 118, 252
Shepard, P. 281
Sherman, K. 147
Sherman, P.B. 240, 241
Shechter, M. 110
Shih, E. 272
Shiklomanov, I.A. 112, 147
Shin, D.-H. 70
Shipton, P. 147
Shirk, E. 282
Shiva, V. 35, 215, 256
Shobowale, O. 248
Shogren, J.F. 35
Shrestha, A.M. 228
Shrestha, N.R. 147, 148
Shue, H. 282
Shuhua, Gu 118
Shultze, W.D. 278
Shuttleworth, W.J. 84
Shuval, H.J. 257
Shvidenko, A. 148
Siegel, P.M. 9
Sikor, T.O. 121
Silk, M.A. 271
Sillitoe, P. 257
Silver, C.S. 70
Sim, B.L. 142
Simm, I. 228
Simmons, I.G. 9, 35, 119
Simon, D. 35
Simon, J.L. 35, 64, 70, 107, 112, 113
Simon, T.W. 282

- Simonis, U. 205
 Simonis, U.E. 35, 70,
 214, 228
 Sin, M. El Hadi Abu, 186
 Sinclair, P. 122
 Sindair, P.J.N. 257
 Singer, F.S. 119
 Singh, A. 191
 Singh, H.V. 221
 Singh, J. 37
 Singh, J.V. 12, 35
 Sinha, K.C. 74
 Sinton, J.E. 117
 Sirait, M. 257
 Siriprachai, S. 67
 Sit, V.F.-S. 191
 Sivaraksa, S. 282
 Sivaramakrishnan, K. 35,
 148
 Sivar, R.L. 84
 Sizer, N. 257
 Sjoberg, G. 21
 Sjöholm, H. 135
 Skinner, B.J. 111, 136
 Skole, D. 148
 Skole, D.L. 165, 172
 Skolnikoff, E.B. 35, 71,
 228, 231
 Slade, M. 108
 Slade, M.E. 257
 Slessor, M. 84, 85, 117
 Slovic, P. 246
 Sly, D.F. 35
 Smidt, C.,E. 23
 Smil, V. 9, 36, 71, 119,
 167, 176, 183, 198,
 229, 271
 Smith, D.A. 106
 Smith, E.A. 10
 Smith, F. 229
 Smith, K.R. 189, 191
 Smith, N. 71
 Smith, N.J.H. 148, 257
 Smith, P.M. 71, 229
 Smith, S. 36
 Smith, T.W. 280
 Smith, V.K. 81, 85, 113
 Smithson, C. 61
 Sober, E. 282
 Sobin, R. 216
 Socolow, R. 36, 71, 169
 Soderbaum, P. 36
 Söderström, O. 36
 Soegiarto, A. 148
 Soejarto, D.D. 148
 Soemarwoto, O. 71
 Soeteman, F.J. 106, 205,
 223
 Sokpon, N. 121
 Solarz, J.A. 63, 250
 Solomon, S. 176
 Solorzano, R. 85
 Solow, R.M. 108, 229,
 282
 Sombroek, W.G. 140
 Someshwar, S. 257
 Soni, P. 252
 Sontheimer, S. 229
 Soto, R. 272
 Souba, J. 74
 Soulé, M.E. 257, 282
 Soussan, J. 119, 250
 Southgate, D. 71, 148,
 183, 257
 Southgate, D.D. 257
 Southworth, F. 85, 176
 Souza, W.P. 6
 Spaargaren, G. 36
 Spash, C. 282
 Spash, C. L. 263
 Spaulding, H. 82
 Spears, J. 149
 Spector, B.I. 229
 Spelman, M.J. 174
 Spencer, D.F. 271
 Spilbury, M. 128
 Spiro, T. 167
 Spoehr, A. 107
 Sponsel, L.E. 36
 Spooner, B. 183
 Sprent, J.I. 10
 Spretnak, C. 282
 Sprinz, D. 229
 Srinivasan, T.N. 71, 149
 Stahl, M. 183
 Stähler, F. 257
 Stahura, J. 29
 Stairs, K. 257
 Standen, V. 36
 Stanhill, G. 149
 Starke, L. 71, 165
 Starr, C. 113
 Starr, J.R. 149
 Starr, M. 183
 Stavins, R.N. 271
 Steeds, D. 183
 Steeds, D.R. 181
 Steen, E. 183
 Steer, A. 85
 Steetskamp, I. 99
 Stein, A. 186
 Steiner, D. 36
 Steingraber, S. 127, 239
 Steinhart, J. 113, 119
 Steininger, K. 71
 Stephens, E.H. 107
 Stern, M.A. 220
 Stern, P.C. 10, 36, 85,
 113, 119, 229, 282
 Sterner, T. 119
 Stevens, C. 71
 Stevens, Jr., D.L. 85
 Stevenson, G.G. 149
 Stevis, D. 229
 Stewart, J.W.B. 10
 Stewart, R. 213
 Stigliani, W. 167
 Stiglitz, J.E. 107
 Stiles, D. 229
 Stilkind, J. 192
 Stillman, P.G. 229
 Stillwell, H.B. 238
 Stinchcombe, A.L. 36
 Stine, D.D. 271
 Stockdale, J. 36, 72, 230

Author Index

- Stocking, M. 85, 123, 179
Stoffle, R.W. 149
Stokes, B. 45, 191, 229
Stokes, K.M. 36
Stone, C.D. 229, 271, 282
Stone, M.P. 41
Stone, R.D. 72, 210
Stone, S. 60
Stone, T.A. 86
Stonich, S. 149
Stonich, S.C. 72, 127
Storer, J.H. 10
Stouffer, R.J. 174
Strange, M. 37
Strasma, J.D. 149
Street-Perrott, F.A. 10
Streeten, P. 149, 230
Stren, R. 186, 190, 191, 192
Stren, R.E. 191, 192
Stokes, R. 104
Strong, M. 72, 271
Strout, A. 119
Stryker, J.D. 183
Stubbs, R. 149
Sullivan, F. 215
Sullivan, J.B. 258
Sun, Bozen 178
Sundgren, J. 215
Surapathy, S.C. 124
Suryanata, K. 258
Sussangkarn, C. 72
Susskind, L. 230
Susskind, L.E. 230
Suzuki, D. 54
Svanquist, N.H. 258
Swallow, S.K. 108
Swaney, J.A. 37, 149, 167
Swanson, T. 66, 258
Swanson, T.M. 37, 72
Swart, R.J. 270
Swearingen, W.D. 167
Swift, A. 37
Swift, D.M. 129
Swift, J. 183
Swift, M.J. 81
Swingland, I.R. 258
Swisher, J. 271
Sylvan, R. 37
Syme, G.J. 281
Synnott, T.J. 251
Tadros, H.R. 271
Tahvonen, O. 72
Tainter, J.A. 37, 72
Tait, D. 139
Takeuchi, K. 120
Talbot, L.M. 124
Talha, M. 186
Tan, Kok-Chiang 249
Tang, Wing-Shing 192
Tanzer, M. 120
Tarasofsky, R.G. 230
Targulian, V. 145
Targulian, V.O. 162
Tartari, G.A. 139
Taylor, D.B. 122
Taylor, L. 72, 230
Taylor, M.S. 163
Taylor, P. 45, 72
Taylor, P.J. 37
Taylor, P.W. 282
Tayman, J. 35
Teels, B. 149
Teitelbaum, M. 37, 72, 73
Tejwani, K.G. 237
Teune, H. 192
Thacher, P.S. 230
Tham, C. 73
Thiesenhuse, W.C. 128, 149, 150
Thomas, C. 230, 255
Thomas, H. 108
Thomas, R.N. 87
Thomas, V. 11, 71, 166, 167, 264
Thomas-Slayter, B.P. 150, 258
Thompson, J. 146, 253
Thompson, K. 215
Thompson, M. 150
Thompson, P.B. 282
Thomson, J.T. 150, 183, 184
Thrupp, L.A. 258
Tickell, C. 230
Tietenberg, T.H. 37, 230
Tiezzi, E. 230
Tiffen, M. 73, 231
Timberlake, L. 59, 73, 163, 168, 184
Timberlake, M. 129
Timmerman, P. 6
Tims, W. 113
Tinbergen, J. 73, 108
Tisdell, C. 37, 73, 85
Titus, J.G. 177
Tjondronegoro, S.M.P. 258
Tobney, J.A. 258, 266
Todaro, M.P. 192
Todes, A. 186
Tokar, B. 38, 231
Tolba, M.K. 73, 167, 231
Toledo, J.M. 271
Toledo, V.M. 150
Toman, M.A. 37, 282
Tomeh, G. 73
Tonna, A. 167, 231
Topping, J. 177
Torres, J.C. 24
Torrey, B.B. 136
Torries, T. 255
Tosi, J. 85
Toulmin, C. 258
Townsend, K. 275
Trainer, T. 231
Treacy, J.M. 258
Trout, B.T. 101
Trujillo-Arriaga, J. 271
Trzyna, T.C. 85
Tsay, Ching-ling 192
Tucker, C. 148
Tucker, C.J. 139
Tucker, D.J. 35, 37

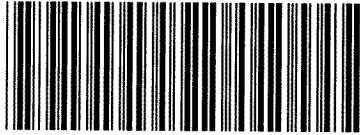
- Tucker, R.P. 145, 150
 Tucker, S.K. 73
 Tulchin, J.S. 73
 Tullis, M. 174
 Tuomioja, E. 272
 Turner II, B.L. 10, 37, 63,
 112, 139, 150
 Turner, R.K. 208, 283
 Tyler, S. 119
- Udo, R.K. 167**
 Ulanowicz, R.E. 85, 251
 Ulgiati, S. 230
 Ulph, A. 272
 Ulph, D. 272
 Ulrich, R.S. 283
 Umaña, A. 259
 Umana, J.C. 166
 Unemo, L. 44
 UNESCO 10, 150, 259
 Ungur, S. 177
 United Nations 85, 192,
 231, 272
 United Nations, Dept of
 Economic and Social
 Information and
 Policy Analysis 73
 United Nations
 Development 26
 Programme 40, 47,
 62, 76, 86, 113, 120,
 152
 United Nations
 Educational,
 Scientific, and
 Cultural Organization
 10, 150, 259
 United Nations
 Environment
 Programme 5, 76, 85,
 86, 113, 150, 152,
 184
 United Nations Secretariat
 74
 Unni, N.V.M. 237
- U.S. Agency for
 International
 Development 259
 U.S. National Academy of
 Sciences 74
- Vaahtoranta, T. 229**
 Vai, B. 120
 Vaishnav, T. 259
 Valencia, M.J. 52, 132
 Vande Kamp, P. 69
 van de Walle, D. 74, 83
 van den Bergh, J.C.J.M.
 74, 106
 van den Bergh, P.L. 38
 Van den Oever, P. 59
 van der Linden, J. 268
 Van Der Straaten, J. 19,
 74, 214
 van der Woerd, H. 270
 Van Dusen, D. 11
 Van Muiswinkel, G.M.
 110
 Van Paridon, K. 54
 Van Ypersele, J.-P. 169
 van't Hof., T. 241
 Varma, A. 74
 Vasquez, A. 85
 Vaughn, G.F. 74
 Veeck, G. 150, 259
 Velázquez, M. 11, 188
 Venator, C.R. 272
 Verbruggen, H. 81
 Vermeer, E.B. 74
 Vernadsky, W.I. 10
 Verstraete, M.M. 189
 Victor, D.G. 205, 231,
 262
 Victor, P.A. 85
 Victoria, R. 10
 Victoria, R. L. 146, 255
 Vidal, J. 231
 Vig, N.J. 231
 Villalobos, C. 85
 Vincent, J.R. 151, 259
- Vining, D.R. 111
 Vitousek, P. 20
 Vitousek, P.M. 74, 167,
 177
 Vogely, W.A. 120
 von Droste, B. 54, 231
 von Moltke, K. 74, 75
 von Weizsäcker, E.U. 231
 Voropaev, G.V. 138
 Vosti, S.A. 68
- Wade, R. 108**
 Wadia, A.B. 75
 Wadley, H. 259
 Waide, J.B. 9
 Wainger, L. 17
 Walker, B.H. 10
 Walker, H.J. 151
 Walker, R.T. 151
 Wall, A. 240
 Wallerstein, I. 108
 Walls, J. 184
 Walsh, M. 272
 Walter, H. 10
 Waltz, T.W. 169
 Wang, Gehua 118
 Wang, Zhishi 151, 192
 Warburton, M. 150
 Ward, B. 167, 192
 Ward, H. 231
 Ward, J.R. 75, 231
 Ward, S.E. 186
 Warford, J. 222
 Warford, J.J. 33, 83, 166,
 168, 225, 252, 269
 Warr, K. 71, 229
 Warren, A. 181, 184
 Warren, K.J. 283
 Warren, L.M. 231
 Warrick, R. 272
 Wathern, P. 85
 Wathern, T. 75
 Watson, J.G. 177
 Watson, V. 85, 186
 Watts, M. 184

Author Index

- Watts, M.J. 38, 170
Watts, N. 228
Weale, A. 272
Weber, P. 151, 259, 272
Webster, D. 192
Weeden, W.P. 166
Weichhart, P. 38
Weiner, M. 75, 232
Weir, D. 272
Weiskel, T.C. 232
Weiss, E.B. 38, 75, 232, 283
Weiss, T.G. 232
Wekwete, K.H. 192
Welch, S. 105
Wellburn, A. 177
Wells, M. 84, 259
Wendling, R.M. 263
Wenyong, M. 167
Wenz, P. 38
Wenz, P.S. 283
Werksman, J.D. 232
Werlen, B. 38
West, E. 12
West, P.C. 103, 121
Westcoat, Jr., J.L. 232
Western, D. 232
Western, S. 75
Westing, A.H. 75, 109, 232
Westlake, M. 223
Westman, W.W. 232
Westoby, J. 151
Whatmore, S. 38
Wheeler, M. 232
Whitaker, J.R. 109
Whitaker, M. 148, 183
White, G.F. 38, 138, 151
White, Jr., L. 38
White, M.J. 86
White, R. 192, 232
White, R.R. 75, 192
White, S. 2327
White, T.A. 259
Whitehead, B.W. 271
Whitehead, C. 186, 241
Whitney, H. 120
Whitney, J. 113, 192
Whittington, D. 86
Wholey, D.R. 14
Widstrand, C. 130
Wiener, J. 213
Wijkman, A. 168, 184
Wilbanks, T.J. 259
Wilcove, D.S. 241
Wildinson, M.L.N. 205
Wilken, G.C. 259
Wilkin, G. 277
Wilkinson, R.G. 38, 75
Williams, A.L. 149
Williams, C. 162
Williams, E.R. 86
Williams, G. 75
Williams, J.T. 257
Williams, L.F. 221
Williams, M. 151, 232
Williams, M. B. 283
Williams, M. J. 232
Williams, O.B. 137
Williams, R. 260
Williams, R.H. 116, 244
Williams, W.E. 114
Williamson, D. 69
Williamson, J.G. 188
Wilson, A.W. 182
Wilson, E.O. 151, 241, 278, 283
Wilson, J.W. 232
Wimberley, D.W. 75
Wimberley, R.C. 75, 233
Winberg, A.R. 120
Wingate, D.B. 260
Winkelmann, D.L. 252
Winsemius, P. 82, 165, 220
Winslow, D. 75
Winter-Nelson, A. 75
Winterbottom, R. 260
Winteringham, F.P.W. 120
Winter, J. 37
Winter, M. 249
Winters, L.A. 22
Wirawan, N. 173
Wirosuhardjo, K. 151
Wirth, D.A. 76, 177, 272
Wirtschafter, R.M. 272
Wise, J.P. 152
Wisner, B. 13, 233
Wisniewski, R.L. 10, 38
Wittgren, H.B. 77
Wofsy, S.C. 174
Woldesmiat, T. 152
Wolf, A. 240
Wolf, E.C. 45, 152, 163, 208, 260, 263
Wolman, M.G. 10, 152
Wong, F.K. 142
Wong, K.K. 263
Wood, C. 70
Wood, W.B. 152
Woodgate, G. 260
Woodhouse, E.J. 76
Wood, P.J. 247
Woodward, R. 85
Woodwell, G.M. 76, 86, 168, 172, 177
Workman, J.P. 137
World Bank 76, 86, 192, 233, 260
World Commission on Environment and Development 76, 168
World Conservation Monitoring Centre 86, 113, 152, 260
World Energy Council 120
World Health Organization 177, 192
World Resources Institute 76, 86, 113, 120, 152, 178, 192

- World Resources Institute
and International
Institute for
Environment and
Development 86, 113,
120, 152
- Worster, D. 10, 38, 283
- Woube, M. 168
- Wright, W. 38
- Wrigley, E.A. 109
- Wu, Kang 242
- Xia, Guang** 272
- Xiong, Jiling 171
- Xu, Yuexian 261
- Xu, Zhifang 260
- Yakushiji, T.** 82, 220
- Yan, Ju 153
- Yeager, R. 152
- Yearley, S. 38, 233
- Yeoh, B.S.A. 188
- Yesilada, B.A. 131, 152
- Yeung, Yue-man 192
- Yohe, G.W. 272
- Yonebayashi, Y. 18
- York, Jr., E.T. 233
- You, Maozheng 138, 249
- Young, D. 233
- Young, J. 38, 233
- Young, J.E. 76, 86, 120,
168, 261, 272
- Young, K.R. 272
- Young, M. 220
- Young, M.D. 76
- Young, O.R. 10, 36, 85,
109, 229, 233, 272
- Young, R.C. 38
- Yudelman, M. 152
- Zaba, B.** 39, 76
- Zaelke, D. 76
- Zaimeche, S.E. 153
- Zeigler, R. 14
- Zetterstrom, R. 118
- Zhang, Jing 153
- Zhang, Peiyuan 168
- Zhang, Yuanduan 272
- Zhang, Zui-Feng 153
- Zhao, Dianwu 171, 178
- Zhao, Qiguo 136, 184
- Zhao, Songqiao 76
- Zhao, X. 169
- Zimmerer, K.S. 39, 184
- Zimmerman, A.H. 76
- Zimmerman, K. 228
- Zimmerman, M.E. 283
- Zinn, F.D. 87
- Zinnes, C. 224
- Zobrist, F.A. 245
- Zonneveld, I.S. 152
- Zucchetto, J.J. 233
- Zuckerbraun, S. 280
- Zuo, Dakang 168, 261
- Zweifler, M.O. 87, 152
- Zwofler, H. 9
- Zylberstajin, D. 115
- Zylicz, T. 273

X11173231



R 016.3337 N28 M
Natural resources, environment
and development in ecological
perspective : a sourcebook for
teaching and research
Hong Kong : Centre of Urban
Planning and Environmental

Date Due

Date Due

Date Due

NOT FOR LOAN

Date Due

NOT FOR LOAN

Binding

