



BOOK REVIEW PERSPECTIVES

Eugene A. Rosa, Andreas Diekmann, Thomas Dietz, & Carlo Jaeger (Eds.), *Human Footprints on the Global Environment: Threats to Sustainability*

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The topic of global environmental change (GEC) is of urgent importance today. To address planetary scale problems like climate change, biodiversity loss, or overconsumption it is important to understand the causes and consequences of human impacts on GEC. In their edited collection *Human Footprints on the Global Environment: Threats to Sustainability* Eugene Rosa, Andreas Diekmann, Thomas Dietz, & Carlo Jaeger present a comprehensive overview of approaches to explaining and conceptualizing GEC. By presenting research from authors with different academic backgrounds, this collection aims to enhance the discourse on GEC across disciplinary boundaries by “bridging future work in social and ecological sciences.” By focusing on the human impacts of GEC and the coupled impact of human and natural systems (CHANS), this multidisciplinary work manages to discuss such diverse topics as land use, risk societies, international regimes, common property, and vulnerability. The goal of the book is to “bring together core findings on the human dimensions of GEC to illustrate the advances that have been made in this critical area of study” and to understand the complex challenges of CHANS in the context of environmental change.

To address these questions, in the first chapter Rosa & Dietz summarize the current state of the art on GEC by providing definitions and explanations of key terms and aspects in this field. In the following chapter, Ulrich Beck turns to the concept of a “world risk society” by giving a concise analysis of the theoretical connotations of the concept arising from realist and constructivist worldviews. Going beyond this “either/or” debate, Beck suggests conceptualizing the concept of “world risk society” as “a way of bringing two contradictory postures, self-destruction and the capacity for a new beginning, into equilibrium.” By applying the concept of “sub-politics” as the emerg-

ing sphere of actors and discourse in the global community, Beck argues that “ultimately state politics can be reinvented by actively embracing a policy of climate protection in alliance with civic groups.” He concludes that, while global risks can be regarded as a “force in present and future world history that escapes any control,” at the same time new opportunities for action emerge for states, nongovernmental organizations, and other actors in the area of sub-politics.

In Chapter 3, Dietz, Rosa, & York provide a critical overview on theories of environmental change: different approaches, explanations, and paradigms are compared and their normative implications discussed. An assessment of their benefits and limits, for example in terms of methodology, is given. This treatment is innovative in its attempt to find common points of departure in theories from different disciplines that usually do not acknowledge each other (e.g., ecological modernization theory and literature on the environmental Kuznets curve).

Discussing biophysical as well as human dimensions of land use, Emilio Moran describes in Chapter 4 the possibilities of global modeling of present landscapes. Acknowledging that “considerable advances have been made in the past ten years in clarifying the human dimensions of land use/cover change,” he argues that “a great deal remains to be done.” For example, it is necessary to improve the integration of social and biophysical research in the understanding of land-transformation research, as well as to enhance understanding of the historical development of major ecosystems in light of changing population size and distribution. He concludes that in the coming decade, it may be more productive to think of human actions not as “driving forces” but as choices made around increasingly scarce resources. The means by which human actors organize themselves, both to gain access to resources and to ensure resource sustainability, should be a high priority in future research.

Focusing on the debate on effectiveness of environmental regimes to address global environmental challenges, Oran Young argues in Chapter 5 that the

varying effectiveness of regimes can be explained by specific “sources of effectiveness,” that relate to the problem structure, regime attributes, social practices, institutional interplay, and “broader setting” in which regimes develop (i.e., the economic situation and the character of the ecosystem addressed by the regime). Young makes several suggestions for new approaches to understand effectiveness: to “break new ground” he suggests, for example, to relax the implicit assumptions of unitary and rational actors in research on environmental regimes, to consider sociological approaches to explain individual behavior, and to include in future research non-state actors that can play crucial roles in regime formation.

In Chapter 6, Bonnie McCay & Svein Jentoft address the challenge of solving problems of common property or common pool resources, highlighting the limits of early approaches to understand the “tragedy of the commons” (Hardin, 1968). The authors argue for a “thicker” approach to conceptualizing common property situations, going beyond the “state” or “privatization” solutions for common property or pool resources. Pointing to later research findings (e.g., Ostrom, 1990) that paint a more positive picture of the ability of individuals to regulate common pool resources independent from state and privatization, they emphasize the need to incorporate in future research the cultural and situational contexts in which people interact. This appeal goes beyond an overly pessimistic or optimistic view about the ability of individuals to solve collective action problems.

In Chapter 7, Jeanne Kaspersen and her collaborators discuss the concept of “vulnerability” in the context of coupled human-ecological systems to global environmental change. This concept is partly related to the discourse on “risk societies” as discussed by Beck, but has a somewhat different focus, as it developed from theories and explanations for hunger, poverty, and deprivation. This idea of people’s “vulnerability” has been transferred to ecological systems’ vulnerability. The authors provide an overview of literature and research in this field.

In Chapter 8, Rosa & Dietz summarize the book’s findings and suggest that future research and policy formation should focus on prevention and mitigation, not just on adaptive response strategies for GEC, and that a future GEC research priority should be a “reinvigorated effort to integrate social science

research with research in the biological and physical sciences.”

Human Footprints on the Global Environment opens interesting perspectives on the state of the art of ecology and the social sciences on GEC and extends the debate to new ground. However, its strengths might also imply some of its weaknesses; by aiming to provide an overview of the field, the treatment is sometimes too complex and ambitious. By covering too many different aspects, several of the chapters—notably 1 and 3—resemble encyclopedias. Furthermore, despite giving a comprehensive overview on theories to explain GEC, the book does not focus explicitly on the sustainable consumption discourse. Even though overconsumption is recognized as having a major impact on the environment (see page 115: “consumption patterns...key driver”), this issue is addressed only implicitly by briefly discussing the growth/degrowth debate and the importance of structure for individual decision making (Chapter 3). Despite these minor shortcomings, the book is a valuable contribution to the current GEC literature.

About the Author

Jessica Pape is a postdoctoral research fellow and project coordinator of the ConsEnSus (Consumption Environment and Sustainability) Project, a four-year collaborative research project involving Trinity College Dublin and National University of Ireland, Galway. This interdisciplinary initiative examines four key areas of household consumption that currently harm the environment and inhibit our ability—both in Northern Ireland and the Republic of Ireland—to achieve sustainable development: transportation, energy, water, and food. More information about the project is available at <http://www.consensus.ie>. She has a background in political science and completed her PhD at the University of Konstanz in Germany in comparative environmental politics.

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