

Economics for a Fragile Planet

In a world of growing environmental risks and ecological scarcities, ensuring a safe Anthropocene for humankind is essential. Managing an increasingly “fragile” planet requires new thinking on markets, institutions and governance built on five principles: ending the underpricing of nature; fostering collective action; accepting absolute limits; attaining sustainability and promoting inclusivity. Rethinking economics and policies in this way can help to overcome the global challenges posed by climate change, biodiversity loss, freshwater scarcity and deteriorating marine and coastal habitats. It requires decoupling wealth creation from environmental degradation through business, policy and financial actions aimed at better stewardship of the biosphere. In this book, renowned environmental economist Edward B. Barbier offers a blueprint for a greener and more inclusive economy, and outlines the steps we must take now to build a post-COVID world that limits environmental threats while sustaining per capita welfare.

Edward B. Barbier is University Distinguished Professor in the Department of Economics and Senior Scholar in the School of Global Environmental Sustainability at Colorado State University. He has consulted for a variety of national, international and nongovernmental agencies on environmental policy, including many UN organizations, the World Bank and the OECD. He is the author of more than twenty-five books, including *A Global Green New Deal* (Cambridge University Press, 2010), *Capitalizing on Nature* (Cambridge University Press, 2011) and *Natural Resources and Economic Development* (Cambridge University Press, Second Edition, 2019).

Cambridge University Press
978-1-108-83082-9 — Economics for a Fragile Planet
Edward Barbier
Frontmatter
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Cambridge University Press
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[More Information](#)

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314-321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India

103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

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www.cambridge.org

Information on this title: www.cambridge.org/9781108830829

DOI: 10.1017/9781108914000

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First published 2022

A catalogue record for this publication is available from the British Library.

ISBN 978-1-108-83082-9 Hardback

ISBN 978-1-108-82338-8 Paperback

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**To Jo Burgess, who is the embodiment of our family motto: Live well,
laugh often and love much.**

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PREFACE

When I was first learning economics, the world was in the middle of the Cold War. The choice was very clear. Either you embraced the market-oriented economic approach of Western capitalism or you favored the state-owned and operated system of Soviet-style socialism.

Prevailing views on the environment were equally stark. Either you viewed economic growth as the source of prosperity and well-being or you disdained growth as the main cause of Earth's environmental destruction.

Today, too often our policy debates concerning both the economy and the environment are still colored by these old arguments. The purpose of this book is to put these archaic views to one side and rethink how economics should grapple with our greatest challenge today: Planet Earth is being destroyed, and we are the cause of its demise.

This challenge is both immense and urgent. Scientists believe that the world has entered a new geological epoch, called the "Anthropocene." Since the mid-twentieth century, human activity has become the dominant influence on the global environment. We are altering basic Earth system processes through climate and land use change, pollution, freshwater use and many other impacts.

If current trends continue, in the coming decades we are likely to face global warming of 2–4°C or more, massive biodiversity losses and species extinction, chronic freshwater scarcity and other unknown environmental disruptions. If we are too slow to act, or do too little too

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late, the Earth will be irrevocably damaged, and future generations will be much worse off than today.

The recent COVID-19 pandemic has not lessened the urgency of this challenge. In many ways it has reinforced the need for action. After all, the risk of disease outbreaks is connected to other environmental threats, such as global land use change and biodiversity and habitat loss. Moreover, as the world economy recovers, so will its unrelenting exploitation of our remaining global environmental resources and sinks.

In short, Planet Earth is now extremely fragile, and it is no longer a problem that we can leave future generations to fix. Global environmental change is already affecting the lives and livelihoods of billions today, and we are exacerbating this problem by delaying actions to deal with it. The longer we wait, the more the costs of inaction rise. Now is the time for humankind to respond to these growing risks.

There is no longer a choice between economic growth and the environment. Protecting and restoring the natural world is essential for human welfare and well-being.

The aim of this book is to identify what steps we need to take to avert the growing environmental risks to our planet. The world urgently needs more innovative thinking on policies and economics for an increasingly “fragile” Earth, and this book offers one vision of the way forward.

Ultimately, this is a book about hope. As people around the world face global environmental crises and suffer their dire consequences, they are demanding new policies. By rethinking markets, institutions and governance, we can formulate a strategy for better stewardship of the global environment. What is more, such a strategy can be workable and affordable, but it will require commitment from all stakeholders in our economy: governments, businesses and consumers.

Overall this entails a commitment of our economies to sustainability and an understanding that policies associated with “greening” economic activity promote better stewardship of the Earth. We need to move beyond the growth versus the environment debate and instead develop new ways of sustaining well-being for all while minimizing environmental risks. Above all, we need to “decouple” wealth creation and economic prosperity from environmental degradation, so that economic development and growing populations no longer threaten the very processes that sustain Earth systems and our economies. This is

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necessary to protect our fragile Earth while ensuring that future generations have at least the same economic opportunities as our current one. We must also do this in a way that reduces wealth and income inequality, alleviates poverty and ensures that economic development is more inclusive.

These issues need to be addressed urgently, yet they are still largely ignored in current economic thinking. The purpose of this book is to start the process of identifying new economic and policy ideas for an increasingly “fragile” planet. The book explores how improving markets, institutions and governance can correct the underpricing of nature and, ultimately, enhance the ability of economies to meet the environmental challenges of the Anthropocene. It illustrates how this can be done with four critical human threats to the global environment: climate change, land use and biodiversity loss, freshwater scarcity and deteriorating marine and coastal habitats. And it explains what public policies are needed to jump-start the transition, and the additional actions required for greening business and finance.

Ensuring a “safe” Anthropocene is the major sustainability challenge facing humankind today. Meeting this challenge places a significant responsibility on economics to lead the way in designing new policies and strategies. The aim of this book is to explain what “economics for a fragile planet” might look like. In a post-COVID world, it is more necessary than ever.

ACKNOWLEDGMENTS

This book would not be possible without the encouragement, support and input of Jo Burgess. For over thirty years, we have worked closely on many of the topics covered in this book. I have lost count of the number of times that Jo has inspired me in applying economics to tackle complex environmental problems. Our many discussions as I was writing this book were instrumental to several of the ideas expressed here. And of course, the comments Jo has provided on early drafts of chapters have improved the manuscript and my writing considerably.

I would like to thank Chris Harrison and Phil Good of Cambridge University Press for encouraging me in this project, and for waiting patiently for me to complete it. Chris has always been keen to publish my work in economics, and he has been supporting my publishing endeavors at Cambridge University Press for nearly two decades. Phil was enthusiastic about this book proposal from the moment I pitched it to him, and he has enthusiastically advocated for and supported its publication throughout.

I am also grateful to Colorado State University (CSU), and especially my colleagues in the Department of Economics, the School of Global Environmental Sustainability and the College of Liberal Arts. Academic freedom is a precious commodity, and I am lucky to be at an institution where it is highly valued. Without the support of CSU and my colleagues for my work and ideas, I am not sure it would have been possible to write this book.

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Because the book in many ways is a reflection of my views gained over a lifetime's career in environmental economics, I owe a debt of gratitude to a long list of teachers, mentors, coauthors, collaborators and institutions who have helped me to develop my ideas throughout the years. Thank you for your support, for your inspiration and, above all, for helping me think and learn.

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