

An Environmental History of India

India, Pakistan, and Bangladesh contain one-fifth of humanity, are home to many biodiversity hot spots, and are among the nations most subject to climatic stresses. By surveying their environmental history, we can gain major insights into the causes and implications of the Indian subcontinent's current conditions. This accessible new survey begins roughly 100 million years ago, when continental drift moved India from the South Pole and across the Indian Ocean, forming the Himalayan Mountains and creating monsoons. Coverage continues into the twentyfirst century, taking readers beyond independence from colonial rule. The new nations of India, Pakistan, and Bangladesh have produced rising populations and have stretched natural resources, even as they have become increasingly engaged with climate change. To understand the region's current and future pressing issues, Michael H. Fisher argues that we must engage with the long and complex history of interactions among its people, land, climate, flora, and fauna.

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An Environmental History of India

From Earliest Times to the Twenty-First Century

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Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

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www.cambridge.org

Information on this title: www.cambridge.org/9781107111622

DOI: 10.1017/9781316276044

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First published 2018

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

Library of Congress Cataloging-in-Publication data

Names: Fisher, Michael Herbert, 1950- author.

Title: An environmental history of India: from earliest times to the twenty-first century / Michael H. Fisher.

Description: Cambridge, United Kingdom; New York, NY: Cambridge University Press, 2018. | Series: New approaches to Asian history; 18 | Includes bibliographical references and index.

Identifiers: LCCN 2018021693 | ISBN 9781107111622 (Hardback) | ISBN 9781107529106 (Paperback)

Subjects: LCSH: India - Environmental conditions. | Human ecology - India -

History. | Nature - Effect of human beings on - India - History.

Classification: LCC GE160.I4 F59 2018 | DDC 304.20954-dc23

LC record available at https://lccn.loc.gov/2018021693

ISBN 978-1-107-11162-2 Hardback ISBN 978-1-107-52910-6 Paperback

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Preface and Acknowledgments

The subcontinent of India has historically played a vital role in the world and will increasingly do so in the future. Its population of 1.6 billion people, one-fifth of humanity, totals more than Africa or than Europe and North America combined. It contains major fauna and flora biodiversity "hot spots," but also regions among the world's most polluted and vulnerable to climate change. We gain major insights about the causes and implications of the Indian subcontinent's current conditions by surveying its extended environmental history, especially the complex interactions among its people, other living beings, and the material world.

Environmental history cannot be studied in isolation, encompassing as it does history of the earth and everything on it. Thus, thoughtful choices must be made about the limits of any study. This book defines its focus as the Indian subcontinent (i.e. South Asia currently covered by the relatively young nations of India, Pakistan, and Bangladesh) – already a vast topic. This choice necessarily leaves out adjacent Afghanistan, Bhutan, Burma/Myanmar, Nepal, and Sri Lanka, and beyond them China, Iran, Tibet, and the rest of Eurasia – although arguments could be made for including any or all these, and they are each worthy of their own books. Simultaneously, this book considers the Indian subcontinent's environmental history within larger arenas as appropriate, including at the global and solar system scales.

Further, this book selects a long chronological scope (but does not go as far back as cosmic creation or even the origin of our earth). We begin when the core of the Indian subcontinent was at the South Pole, when monsoons and the Himalayan Mountains did not yet exist, and when *Homo sapiens* had not yet evolved. Tracing illustrative environmental changes, including the rise of major world religions, kingdoms and empires, and major ecological shifts, the book concludes in the second decade of the twenty-first century. This subcontinental scope and extended timescale make visible long-term patterns of change and continuity that present-centered or nationally limited accounts cannot.

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x Preface and Acknowledgments

Intended for general readers, this book builds on the growing body of sophisticated and insightful works of scholarship about key aspects of India's environmental history. Specialists will recognize how much their research has contributed to key arguments and evidence in this book. For the sake of clarity, however, references to these are largely concentrated in the Bibliographical Essay.

This book arose from decades of teaching "Environmental Histories of South Asia" with undergraduates at Oberlin College. Generations of students and distinguished guest faculty, including Ramachandra Guha, taught me how vital the study of South Asia's environmental history is for all our lives. Over the years, I have also learned much from my interactions with pathbreaking scholars in this field, including Paul Greenough, Sumit Guha, Mahesh Rangarajan, K. Sivaramakrishnan, John Richards, Thomas Trautmann, and Richard Tucker. I also thank Vinita Damodaran. I am grateful to Dawn Wade for her excellent copyediting and to Sunantha Ramamoorthy for her splendid project management. My Cambridge University Press editor, Lucy Rhymer, encouraged and guided me from the inception of this project through to publication.