Economics of Forest Resources

Gregory S. Amacher Markku Ollikainen Erkki Koskela

The MIT Press Cambridge, Massachusetts London, England

© 2009 Massachusetts Institute of Technology

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

For information about special quantity discounts, please email special_sales@mitpress.mit.edu

This book was set in Palatino on 3B2 by Asco Typesetters, Hong Kong. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Amacher, Gregory S., 1962-

Economics of forest resources / Gregory S. Amacher, Markku Ollikainen, and Erkki Koskela.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01248-5 (hardcover: alk. paper) 1. Forests and forestry—Economic aspects.

I. Ollikainen, Markku, 1952 - II. Koskela, Erkki, 1946 - III. Title.

SD393.A46 2009

338.1'349—dc22 2008032762

10 9 8 7 6 5 4 3 2 1

Preface

Three things led us to undertake the level of effort needed to write this book. First, we hope there is pent-up demand for the book and that it will appeal to all resource economists. While many of us pored over Johansson and Löfgren's 1985 text (The Economics of Forestry and Natural Resources) to learn the theory of forest economics, that book is now more than 20 years old. The fact that it may still be consulted on a number of issues is a testament to its continuing value. However, given the growth of the field since that time, and the fact that their book has been long out of print, instructors currently do not have a book that can be used to teach forest economics to graduate students of any level. For the researcher, there is nothing in existence that remotely resembles a serious handbook, and even surveys of important new topics are absent from the published literature. Second, the field of forest economics has expanded rapidly during the past 20 years. None of this recent history has been chronicled or critically evaluated and compared. Any serious specialist requires such an evaluation before tackling the myriad problems falling within the field of forest resources. Finally, forestry problems themselves, particularly those involving deforestation, climate, and conservation of biodiversity, are increasingly dominating the attention of economists and policy makers. During the past 15 years, forestry problems have become an increasing part of what most people consider to be the economics of natural resources. Unfortunately, books dealing with the economics of natural resources aimed at the graduate level focus on fisheries or water resources in their renewable resource sections and relegate forestry to an obligatory chapter. Not surprisingly, only the most basic (and often outdated) material is ever in the hands of the student or reader.

The pages of this book provide a comprehensive and technical survey of forest resource economics, concentrating on developments within the past 25 years. The focus is especially directed toward understanding the economics behind forest policy problems and policy design, since the application of policy instruments is often a controversial area in which statements are sometimes not based upon rigorous study and reflection. However, the book is comprehensive enough to touch

xiv Preface

on virtually all areas that form the theoretical foundations of forest resource economics. This book introduces the reader to the rigor needed to think through the consequences of policy instruments targeting forests or the consequences of landowner actions and decisions. To provide context for the latest innovations, we also discuss classical theories upon which modern forest economics is based. The book is therefore a combination of a text for learning and for pondering. We hope to stimulate new research, empirical and theoretical, with our presentation of topics. We also hope to provide anyone with an interest in economics a gateway to the rich and still wide-open field of forest resources.