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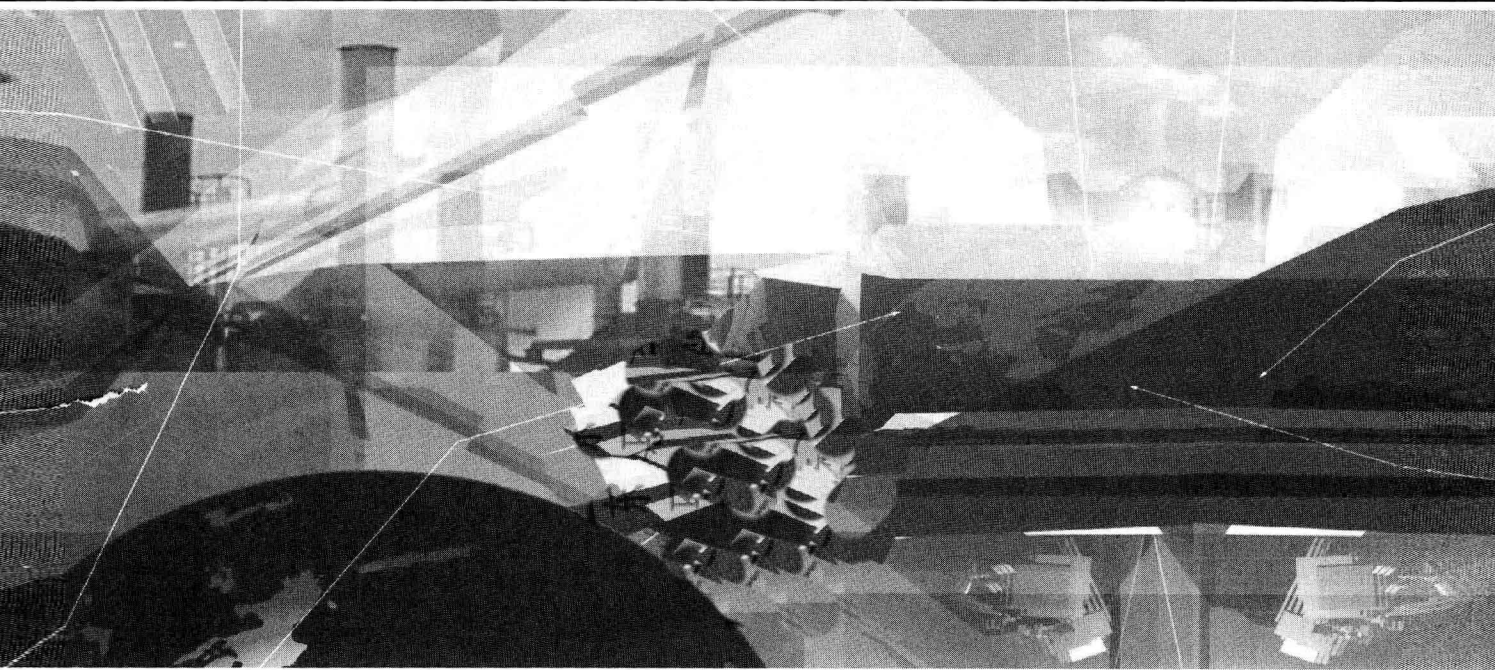
*APPLICATIONS, POLICY,
AND THEORY*

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ENVIRONMENTAL ECONOMICS

Applications, Policy, and Theory



Janet M. Thomas Scott J. Callan
Bentley College

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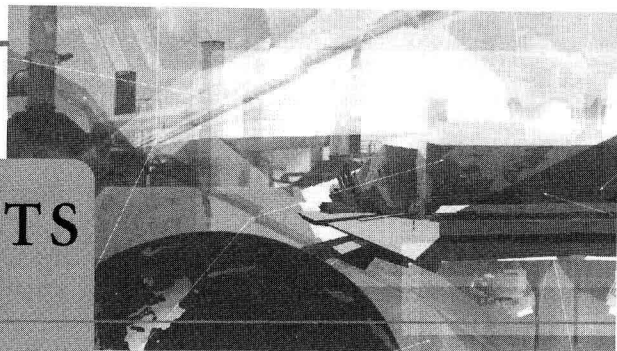
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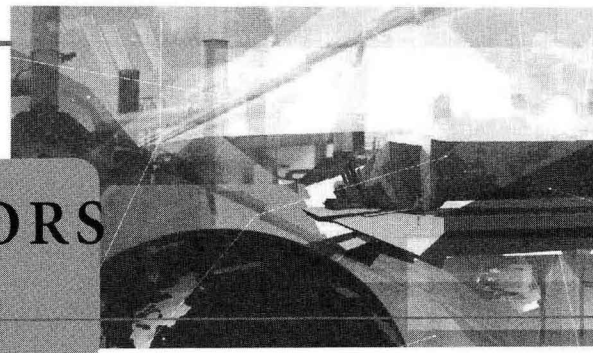
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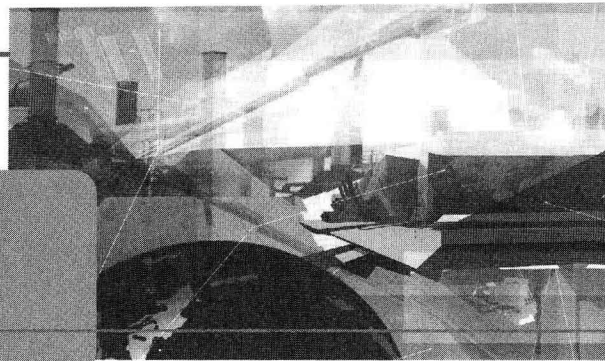


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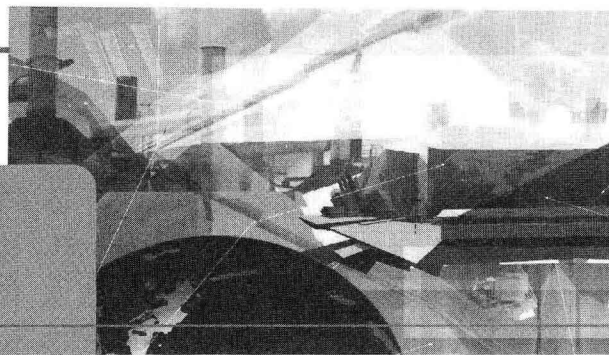
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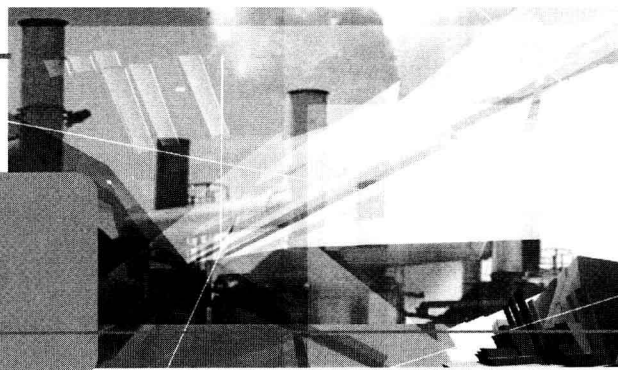
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CHAPTER 1



Introduction

In the past ten years, the world has changed in ways we never thought possible. This past decade has been marked by international conflict, acts of terrorism, and economic challenges. But society also has witnessed achievements and positive change—great strides in medical technology, advances in telecommunication, computing, and digitization, and measurable progress toward achieving a cleaner environment. During the last decade, Earth Day celebrated its 35th anniversary, and the Rio Summit its 10th, with the latter marked by the World Summit on Sustainable Development in Johannesburg. At the start of the new century, the European Union banned leaded gasoline, the Kyoto Protocol was ratified, hybrid SUVs were introduced, and important trends are evolving toward sustainable development, pollution prevention, and market-based solutions.

Of course, there have been setbacks and more than a few difficult compromises. The rapid economic growth in China, for example, has placed that country's natural resources at risk. This giant nation along with other countries faces serious water shortages, and urban areas around the world continue to struggle with poor air quality. Beyond national issues are transboundary environmental concerns, including global warming and ozone depletion. Without question, there is still much to be done. But the good news is that on balance, society has grown more cognizant of environmental risks and more receptive to the notion of integrating environmental issues into virtually every aspect of private and public decision making.

Few would debate the influence of environmental concerns on all facets of contemporary living—consumer behavior, corporate strategy, and public policy development. In the last several decades, we have witnessed significant change in product design, capital investment practices, tax and accounting policies, product packaging, and technology. New industries have emerged in environmental products and services. National and international policies have been implemented to preserve natural resources and ecosystems. Firms have redefined their business strategies in response to new regulations and the changing demands of more environmentally conscious consumers. Many companies now produce an environmental report to stockholders along with their financial annual report. As a society, we have come to recognize that economic activity and the natural environment are inexorably linked, and this profound relationship is at the core of environmental economics and management.

Arguably, environmental economics is a dynamic field. Hence, we continue to work diligently to keep the content of this text current and, at the same time, accessible to students and lively. In this fourth edition of our book, we again have had the opportunity to integrate suggestions offered by our review panel, insightful comments made by our adopters, plus some new ideas of our own. We continue to believe that teaching environmental economics is an exciting opportunity to show students the broad applicability of economic thinking. Students are more environmentally literate than ever before, and most are eager to understand how the market process can help explain and even solve environmental problems. It is, to say the least, an energizing challenge to present this evolving field to what typically is a diverse audience of students.