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0521447925 - Cost-Benefit Analysis of Environmental Change

Per-Olov Johansson

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This book is an advanced text in applied welfare economics and its application to environmental economics. The author goes far beyond the existing literature on the valuation of environmental benefits, deriving sets of cost-benefit rules which can be used to assess private and public sector projects which affect the environment. He explains how valuation studies can be augmented so as to yield the information necessary for decision-making, showing how externalities, taxes, unemployment, risk, irreversibilities, flow and stock pollutants, discounting, and intergenerational distribution should be treated in social cost-benefit analysis. Drawing on a number of empirical illustrations, this book will be of interest not only to those taking advanced courses in environmental economics, welfare economics and public economics, but also as a reference for those undertaking project evaluations in government and business.

Per-Olov Johansson is Professor of Economics at the Stockholm School of Economics. His previous books include *An introduction to modern welfare economics* (1991) and *The economic theory and measurement of environmental benefits* (1987).

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Preface

There is now a considerable literature on the economic theory and measurement of environmental benefits. At least in part this is explained by the fact that there is a growing concern in many countries about what we are doing to our environmental resources. This has created a need for economic analysis of environmental problems. When reading the reviews of my own 1987 book on environmental benefits, I was struck by the fact that several reviewers demanded a book on the cost-benefit analysis of environmental damage. As teachers, they had to complement the benefits literature with other books and articles covering the remaining corner-stones of cost-benefit analysis. I had expected somebody immediately to try to fill this gap in the literature on environmental economics. In any case, I finally decided to try to produce a survey of the literature on cost-benefit analysis, and, in so doing, adapt the approach so as to make it suitable for the evaluation of environmental changes. This book is the result of my labour, which I hope has been at least partly successful.

The book is an advanced text in applied welfare economics and its application to environmental economics. It is intended for PhD courses in environmental, welfare, health and public economics. The book also provides simple sets of project evaluation rules ('rules of thumb') on such matters as the treatment of different kinds of taxes, unemployment, risk and externalities. For this reason, the book should also be useful as a reference work for those undertaking project evaluations in government agencies and private firms.

I am grateful to Peter Högfeldt, Bengt Kriström, Karl-Gustaf Löfgren and Rauli Svento for helpful discussions and comments upon parts of earlier drafts. Parts of chapter 7 were written for the European Science Foundation's programme on environment, science and society. My colleagues of the programme's task force group on valuation, risk and uncertainty contributed with many helpful comments on my material. I also owe a lot to the four anonymous referees provided for me by Cambridge

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In spite of all the help that has been provided by outsiders, there are undoubtedly errors, flaws and ‘Scandinavianisms’ remaining. As a matter of good form, I remind the reader that they are the responsibility of the author.