Books Reviewed


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Dividing all economic analysis of man’s interaction with nature into either resource economics, concerned with what humans extract from nature in the form of timber, minerals, or fish; and environmental economics, concerned with what humans give back to the natural environment in the form of pollution, solid waste, etc., is logical, but with more or less arbitrary borders. Consequently, when writing a textbook this needs to be taken into account. If I choose to write a book about, say resource economics, how do I handle non-market valuation, a topic usually seen as belonging to the realm of environmental economics? Non-market values are potentially very important to the management of whales or the socially optimal rotation age in forestry, for instance. Do I include a chapter on how to measure non-market values?

One solution is to write a text that covers both environmental and resource economics; a book that includes chapters both about extraction and pollution. This comprehensive approach is relatively rare, however, since it typically makes the book very long—an example is the fourth edition of Perman et al., Natural Resource and Environmental Economics, which is no less than 712 pages.

Another choice is target audience. An introductory-level undergraduate textbook must skip the more advanced mathematical presentations, while a masters/graduate level textbook allows the author to use more powerful mathematical techniques, such as optimal control theory, to present important results. Since extraction of natural resources, such as fish or minerals is a dynamic problem in which discounting plays an important role, writing chapters on renewable and non-renewable resources for undergraduates is a challenge.

These choices of scope and level facing any author attempting to write a textbook in environmental and/or resource economics are important, and should be borne in mind when judging a new book on the market, such as Resource Economics: An Economic Approach to Natural Resource and Environmental Policy by John C. Bergstrom and Alan Randall. Concerning scope, despite the title, which suggests a more narrow scope, Bergstrom and Randall clearly try to take on both environmental and resource economics. The book contains chapters on non-renewable and renewable resources, but also chapters on benefit-cost analysis, non-market valuation, and the control of pollution. A little bit of everything it seems.

Concerning level, the book is clearly an undergraduate text. The answer to the optimal rotation problem in forestry, the Faustmann condition, is derived in a non-technical, intuitive way, but in the chapter about non-renewable resources, why can’t Faustmann or Hotelling be credited? The text even contains basic microeconomic and welfare theory (using the familiar Edgeworth boxes to present basic results). This makes the book very self-contained; it really does not assume any pre-knowledge of economics. This all makes the book quite unusual, a textbook with a wide scope at a very basic level. Despite this, the book is of moderate size, 430 pages. So what is given up, you ask? Yes, to keep the number of pages reasonable, some parts are presented rather cursory. The section on

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