

Review: The Human Impact on the Natural Environment (5th ed.)
Review: The Human Impact Reader: Readings and Case Studies
By Andrew Goudie

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Goudie, Andrew. *The Human Impact on the Natural Environment* (5th ed.).
Cambridge, MA: MIT Press, 2000. 511 pp. ISBN 0-262-57138-2
(paperback). US\$29.95

Goudie, Andrew (Ed.). *The Human Impact Reader: Readings and Case
Studies*. Malden, MA: Blackwell Publishers, 1997. 472 pp. ISBN 0-631-19981
(paperback). US\$33.95

Andrew Goudie's acclaimed geography textbook, *The Human Impact on the Natural Environment*, now in its fifth edition, is as relevant as ever to social and scientific aspects of ecology. It is best read in conjunction with his edited volume of articles reprinted from scientific journals, *The Human Impact Reader*. Both are aimed at upper-level undergraduates and informed readers who want to enrich their knowledge of "physical geography as modified by human action," to borrow a phrase from George Perkins Marsh (1864) whose legacy Goudie draws on extensively.

The textbook begins with an historical account of how cultural adaptations to technological changes have influenced, and generally intensified, environmental impacts (i.e., I=PAT). It proceeds with separate chapters on human effects on vegetation, animals, soil, water, geomorphology, climate, and atmosphere. The reader follows roughly the same organization in its sections, each of which begins with an introduction to relevant literature.

Goudie's textbook has changed little since its first publication in 1981, but he has updated it periodically to reflect recent literature and current issues. The fifth edition is particularly welcome in this regard given the rapid pace of recent research, especially on climate change. Since Rio and Kyoto, it has mushroomed along with public interest and funding, and Goudie does an excellent job documenting and explaining this. Both books demonstrate, somewhat ironically, that the problem of scientific uncertainty is ever present, particularly on this issue:

No completely acceptable explanation of climatic change has ever been presented, and no one process acting alone can explain all scales of climate change. The complexity of possibly causative factors is daunting (Goudie

2000, 328).

These books help readers grapple with environmental problems from social and natural science perspectives. The integration of cultural and biophysical knowledge is key to understanding environmental impacts, and Goudie succeeds in this regard perhaps more than in any other, especially for the way he develops the linkages historically and to the present. He is often commended (justifiably) for this synthesis, as well as for his objective treatment of various scientific debates. Yet, while his accounts of scientific arguments and evidence are balanced and comprehensive, he does not engage very directly with corollary policy debates. The precautionary principle, for example, has become central to environmentalism, even if critics regard it as neo-Malthusian. Goudie deals with this issue only tangentially and seems to dismiss it as "political":

[D]ifferences of opinion may result from ideological and political differences between authors. However, ... it is unquestionable that our fundamental knowledge is still far too slim for us to build reliable prognoses of the future on it, and that ... [we] need to seek more information (Goudie 2000, 380-381).

Few would deny this and many would concur on the importance of making "difficult trade-offs between economic growth and environmental protection" (Goudie 2000, 418), yet neither book speaks to the policy implications of these observations or their scientific underpinnings. Still, Goudie's books are packed with useful information and must-reads for anyone interested in how we interact with the environment.

References

Marsh, George Perkins. (1864). *Man And Nature, Or, Physical Geography As Modified By Human Action*. Cambridge, MA: Belknap Press of Harvard University Press (1965 reprint).

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