

Forum

Economic growth, carrying capacity, and the environment

Robert Costanza

*Institute for Ecological Economics, Center for Environmental and Estuarine Studies, University of Maryland, Box 38, Solomons,
MD 20688-0038, USA*

Keywords: Economic growth; Carrying capacity; Consensus statement

1. Background

No set of issues has tended to separate economists and ecologists, especially in the mind of the public, more than those surrounding the linkages between economic growth, carrying capacity, and the environment. The general lack of interest among the majority of economists in problems of the environment, and a parallel lack of interest among the majority of ecologists in economic issues, combined with a lack of dialogue between ecologists and economists has allowed extreme positions to take hold in the public debate and to influence policy to an inordinate degree. Just one example from a recent book covering a debate between Julian Simon and Norman Myers (Myers and Simon, 1994) should suffice to demonstrate just how extreme some of these positions are. Consider the following quote by Simon:

“We now have in our hands—in our libraries, really—the technology to feed, clothe, and supply energy to an ever-growing population for the next 7 billion years. Most amazing is that most of this specific body of knowledge developed within the past hundred years or so, though it rests on knowledge that had accumulated for millennia, of course. Indeed, the last necessary additions to this body of knowledge—nuclear fission and space travel—occurred decades ago. Even if no new knowledge were ever invented after those advances, we would be able

to go on increasing forever, improving our standard of living and our control over our environment. The discovery of genetic manipulation certainly enhances our powers greatly, but even without it we could have continued our progress forever.” (pp. 65)

This blind and total optimism about the ability of technology to solve all our problems and allow economic and population growth to continue unabated *forever* is certainly not a position held by many reputable economists (Ravaioli and Ekins, 1995). And yet, statements like these have been taken as the general view of economists on growth and the environment.¹

An analogous situation holds for ecologists. Environmentalists (not necessarily ecologists) make extreme statements that are intended to dramatize the situation, but end up polarizing it instead.

The problem is that these issues are often presented in both the scientific literature and in the popular press in a “debate” format, one that assumes there is a “right” and a “wrong” answer and attempts to lay out the opposing positions so the audience can choose for themselves who is “right.” This format appeals to journalists trying to achieve “balanced” coverage, but, ironically, the complex and important issues that are often the subject of

¹ Simon is, in fact, a professor of Business Administration, not an economist.

these debates become muddied rather than sharpened when subjected to this format. They are not black and white issues; accentuating the debate format actually hinders our ability to paint a richer, multi-colored, picture and achieve consensus on appropriate courses of action. In addition, the journalistic search for “balance” often pits a broad scientific consensus against a few crackpots willing to take the opposite position—hardly an accurate picture of the true balance of opinion in the community. This is not to say we don’t need a thorough and ongoing discussion, but the format should be one of truly balanced and interactive dialogue rather than confrontational debate in the journalistic style.

2. The Askö meeting: Toward dialogue and consensus

This kind of balanced and interactive dialogue was the goal of a small workshop held August 31–September 2, 1994, in the archipelago outside of Stockholm, Sweden. The meeting was organized by the Beijer International Institute of Ecological Economics, a part of the Royal Swedish Academy of Sciences, and was attended by all the authors of the paper which is the starting point of this forum (Arrow et al., 1995, reprinted here).

The aim of the meeting was to establish a substantive dialogue among a small group of ecologists and economists, to see whether there was an interdisciplinary consensus on the issues of economic growth, carrying capacity, and the environment, and to determine what could be said about the joint development of economic and environmental policy.

One outcome of this meeting was a paper intended to reframe the debate by presenting the *consensus* that could be achieved among this diverse group of authors, who came from very different intellectual backgrounds in ecology and economics (Arrow et al., 1995). There is nothing in the paper’s content that one could not find in the statements of various other individuals elsewhere, but what is significant is what the consensus that developed from this interactive dialogue looks like, and how it differs from the more usual statements attributed to these two groups on the issues under discussion. It also stands in stark contrast to the more extreme state-

ments like the one quoted above. We hoped that by publishing this consensus statement in a reputable, high-circulation journal like *Science* we could clear the air a bit about how much agreement there really was among these two communities, and pave the way for more rational and collaborative development of policy. This is certainly one of the goals of *Ecological Economics*.

3. The purpose of the Forum

Like any consensus statement, Arrow et al. (1995) leaves many things vague and only scratches the surface of many others. But one of its main purposes was to serve as a starting point for future elaboration and discussion. The Forum which follows is an effort to elicit this further elaboration and discussion from a set of invited respondents. We are publishing parts of this Forum in three separate journals simultaneously. In addition to *Ecological Economics*, *Ecological Applications* (a journal of the Ecological Society of America), and *Environment and Development Economics* (a new journal starting in 1996, Charles Perrings, chief editor, published by Cambridge University Press) are publishing similar Forums around the Arrow et al. article with different sets of invited participants.

Each invited participant was asked simply for a response. It could be positive or negative, and take off in any direction the respondent chose. Each of the authors tended to pick up on different aspects of the original article, most finding points of both agreement and disagreement. We hope you will agree that the results make for highly stimulating reading, and that they further the cause of creating a more balanced and interactive dialogue on these critical issues.

References

- Arrow, K., Bolin, B., Costanza, R., Dasgupta, P., Folke, C., Holling, C.S., Jansson, B.-O., Levin, S., Mäler, K.-G., Perrings, C. and Pimentel, D., 1995. Economic growth, carrying capacity, and the environment. *Science*, 268: 520–521.
- Myers, N. and Simon, J.L., 1994. *Scarcity or Abundance? A Debate on the Environment*. Norton, New York, NY, 254 pp.
- Ravaioli, C. and Ekins, P., 1995. *Economists and the Environment: What the Top Economists Say about the Environment*. Zed Books, London, 212 pp.