

SPECIAL SECTION: FORUM ON VALUATION OF ECOSYSTEM SERVICES

Monetary-costing environmental services: nothing is lost,
something is gained

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The skeleton in the finite-earth closet is redistribution of income and wealth. I believe most people know this viscerally, do not like it, and therefore deny limits. Recent articles have addressed biological and physical aspects of imminent limits (NPP (Vitousek et al., 1986), water (Dynesius and Nilsson, 1994; Postel et al., 1996), biodiversity (Daily, 1997; Vitousek et al., 1997, etc.) using biological and physical numeraires. This paper by Costanza et al. (1997) attempts to address the same issues using money as numeraire. Is there risk of misuse of these numbers? Of course. Is it worthwhile? Yes, strongly so. The article is well placed, highly visible, honestly presented, and well-timed—a milepost in ecological economics. It cannot resolve the difficulties it admits, but it delivers them well and gives a concrete result to debate and debunk, probably predominately the latter.

The results provide a finite number X (in \$/year) for environmental services. The question I ask is: Do the gains from using X instead of the economist's previous 'zero' outweigh the losses

from using X instead of the ecologist's previous 'infinity'? My answer is yes, but I don't feel bound to hold this position forever.

Debates over proper methods of analysis wax and wane in popularity, not just with the public but also among specialists, with a characteristic time of ≈ 5 years. One view dominates attention for a while and then another. It is right that monetarily costing 'uncostable' ecosystems services is more visible now than 'ecological' aspects. It was religious/moral aspects 5 years ago, 10 years ago it was biocentrism, and 15–20 years ago it was ecosystem function. All are important, and all figure in the ultimate goal of appropriate treatment of the ecosphere and each other. Our goal is to keep our eye on the goal, to argue, debate, maximize exposure and educational impact, and try to help the swings converge.

Certainly there are still strong arguments for parallel biophysical and economic approaches. For one thing, different approaches are more useful in different places at different times. If rich countries are willing to consider indicators increasingly incorporating non-economic elements (ISEW, green GDP, various indices of social wel-

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fare, and the biological and physical indicators above), let those be used. On the other hand, developing countries on an economic growth burst may find standard economic indicators more compelling. However, not all is arbitrary and unpressing. Shifting the center of gravity of the ecological debate towards economic valuation is appropriate and necessary for two reasons:

1. Systemic. The next 30–50 years will be a time of high economic growth, especially in the Third World, driven by extreme expectations and global capitalism. Some players will win big, and all will be watching. There will be continued minimal communication between growth centers and environmental interests unless the latter speak economics, especially to undeveloped populations. Economics is there first, and all must speak its language seriously, at least some of the time, or be cut out of crucial parts of the debate. When we include the present reality and future likelihood that transnational corporations will be the engines of growth, and that they have standard economic connections back to distant investors who want growth of their pension funds, etc., we must speak their language to them.
2. Personal. Operationally, essentially all humans are economic creatures. Human wants are unlimited, whether it has to do with food, a refrigerator, health care, mortgage payments,

vacations, an education for one's children, or investing for retirement. Without the reinforcement of price signals to convey constraints, many of our best intentions erode as we backslide, driven by human frailty, envy, and the tragedy of the commons.

The argument that we lose our souls by economically pricing the environment is silly, as long as we realize the difficulties and pitfalls. If we don't use such prices seriously at least part of the time, we are guaranteeing the continuation of two cultures and the costs of continued blind economic growth.

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