

**BJORN LOMBORG***Cool It: The Skeptical Environmentalist's Guide to Global Warming*

New York: Alfred A. Knopf, 2007. x + 253 p. \$21.00.

In 2001 Bjorn Lomborg rocked the boat in environmental and scientific communities with his book, *The Skeptical Environmentalist*. Inspired by the writings of Julian Simon, he reviewed a range of issues related to the environment and well-being, from climate change and biodiversity to poverty and health, and concluded that much of the public discourse surrounding them was exaggerated, leading to skewed priorities in public policy. He took particular exception to what he viewed as hyperbole regarding the state of the environment. The book provoked a huge outpouring of responses; it was hailed in some quarters while generating a firestorm of criticism in others. (A review appeared in *PDR* 27, no. 4.) Environmentalists argued that their positions had been mischaracterized and that Lomborg, a Danish political scientist with a background in statistics, had bungled the scientific analysis. Many scientists joined the fray as well, writing reviews, editorials, and even a four-essay special section in *Scientific American* detailing what were seen as fundamental flaws in the arguments and in the reading of the science.

Now Lomborg is back with another book, *Cool It: The Skeptical Environmentalist's Guide to Global Warming*, this time focused on the issue of climate change. The basic argument is much the same, if narrower in scope: the risks of climate change are being exaggerated, and, rightly considered, should occupy a place far down any priority list of the world's problems. I would like to be able to report that Lomborg learned from his previous experience and has written a thoughtful and balanced contribution to the climate change debate. Unfortunately this is not the case. The flaws in the book, and there are many, have changed in detail but not in kind: selective use of the literature, mis-framing of the problem, and in some cases outright distortions of the source material, all presented in the tone of an authoritative but easily digestible review for the general public.

This is a shame, because Lomborg's two main arguments deserve a fuller hearing, and the sleight of hand he employs, while undercutting his case, is simply unnecessary. First, it is undoubtedly true that in some cases the climate change issue is being painted in the starkest of doomsday colors, at odds with the scientific literature. Lomborg is right to call people to task when they speak of impending catastrophe or of the very existence of civilization being at risk. You won't find support for such assertions in the reports of the Intergovernmental Panel on Climate Change (IPCC), the international scientific body that produces authoritative assessments of the science every five years or so. I, like many others working in this field, am increasingly uncomfortable with the growing use in public discourse of catastrophic language and of phrases like "tipping points" to describe possible changes in the climate system. They may be technically correct descriptions, in an academic sense, of possible non-linear or irreversible changes, but they are too imprecise for the public conversation. Passing a tipping point in ice sheet disintegration does not mean that we will wake up the next day with the West Antarctic Ice Sheet gone and sea level rise quickly swallowing up whole cities, but it is bound to be interpreted that way.

Second, it is also worth putting climate change in the context of the set of larger issues the world faces, including not only other environmental issues but also those more directly related to development and well-being. Lomborg has already generated much criticism (well founded, in my view) of his previous efforts to do this by organizing a hand-picked set of experts to produce a “Copenhagen Consensus” on the world’s most pressing problems (you can guess how climate change fared). Many do not agree with the basic premise of such an exercise, arguing that we are not playing a zero-sum game in which attention to one issue must come at the expense of another, and many more do not agree with his resulting prioritization. But at some level I think we do live in a world of tradeoffs, and it is worth considering the appropriateness of the current balance of effort, money, and political attention expended on the various problems we face. Issue advocates, and scientists who work on a specific issue, can sometimes lose sight of the fact that “their” issue is but one of a larger set that society must grapple with.

But *Cool It* is unlikely to lead to considered discussion of these issues. The response to the book, at least so far, has been relatively muted. One can easily speculate why. For one, the public attitude on climate change has shifted since Lomborg’s first book, away from debating the science and toward what ought to be done about the issue. The awarding of the Nobel peace prize to the IPCC for its scientific contributions and to Al Gore for his campaign to spur action is indicative of the reduced public appetite for wrangling over the science. In addition, Lomborg’s readership may well be wary after the broadside of criticism last time around.

The smoke and mirrors begin early in the book. For starters, the critique that the climate debate is plagued by hyperbole, while accurate in specific instances, is a sweeping generalization. For example, Lomborg makes no clear distinction between the way climate risks are represented in the scientific community, on the one hand, and in the media and advocacy arena, on the other. Yes, *Time* and *Newsweek* have run headlines not well-founded in the science, but no, that does not mean the science of climate change is exaggerated. Similarly, Al Gore, who comes in for special scrutiny, is rightly criticized for his dramatization of the effects of a 20-foot sea level rise flooding Miami and San Francisco Bay while neglecting to mention that this event may take centuries or millennia to occur. But we are not told that, in the view of many in the scientific community, Gore’s presentation as a whole, while clearly an advocacy piece, was generally faithful to the science.

Second, Lomborg’s analysis is not an accurate reflection of the essential nature of the climate change problem. His basic approach would be called, in the jargon, “deterministic cost-benefit analysis.” He assesses a single mid-range scenario of future climate change, amounting to about a 2.6°C (4.7°F) increase in global average temperature by 2100, that he believes is the most likely outcome in the absence of emissions reductions. He judges the consequences of such a scenario to be of some concern, to be sure—he does not dismiss climate change as entirely unimportant—but relatively mild. He judges the costs of reducing emissions to avoid this outcome to be extremely high. And therefore he concludes that the problem is not worth doing much about at the moment, proposing instead that we invest in measures that will help us adapt to climate change and make some modest investments in developing

new energy technologies so that in the future we will have the know-how to reduce emissions.

This deterministic approach, which ignores the possibility of less likely but more extreme outcomes, is simply not suitable for a problem like climate change. It may be that something like his preferred 2.6°C scenario would come to pass if we do nothing, but it may be that there would be substantially more (or somewhat less) warming. The range of warming in the set of scenarios produced by the IPCC, for example, is 1.4–6°C, with no part of that range judged as more likely than any other. You can't just pick your favorite outcome and forget the rest. A warming of 6°C would almost certainly be a major challenge to society, with substantial risks of large-scale changes to regional climates, loss of unique ecosystems, and threats to water supplies and food production. Ignoring this possibility when considering current climate policy is like designing airline safety regulations based only on the most likely outcome—an uneventful flight—rather than on the small chance of a crash. Or, to put it in demographic terms, it is like designing a social security system based only on a medium population projection, without considering the chance that fertility will be lower, life expectancy higher, and therefore the age structure much older than in a best-guess case. Typically, and as has been shown for climate change specifically, including such risks in the analysis tends to justify more emissions reduction now as a hedge against unpleasant outcomes.

Third, when it gets down to the details, Lomborg's analysis of the science is simply not reliable. His version of the likely impacts and emissions reduction costs suffers from the kind of selective citation of the literature he rails against in the environmental community. As an example, he picks an estimate for the future damages associated with the emission of a ton of carbon today of about US\$2, a low value that fits well with his conclusions, without indicating that: (1) the uncertainty range is two or three orders of magnitude (with \$2 at the extreme low end); (2) such estimates depend crucially on a value judgment about how much one should care about damages experienced by future generations; and (3) the estimate excludes so-called non-market impacts such as species extinction and loss of life that are too difficult to value in dollar terms. Similarly, he makes much of studies indicating that the increase in lives lost to future heatwaves will be outweighed by the reduction in deaths from cold snaps. But he fails to mention that this conclusion is in fact prominently displayed in the IPCC's summary for policymakers. Nor does he let on that when one considers the full set of projected health effects, including anticipated increases in infectious disease and malnutrition, the net consequences are expected to be decidedly negative. Finally, even in what he considers his exhibit A—supposedly alarmist warnings about the future plight of polar bears—he distorts the evidence. The Arctic Climate Impact Assessment, a multi-year study coordinated by the governments of eight northern countries, clearly concludes that global warming, by causing a loss of summer sea ice in the Arctic, could threaten the survival of polar bears as a species. Lomborg twists a single sentence in the report to back up his assertion that polar bears are "likely" to adapt easily to a warmer world.

Population does not figure heavily in the book's arguments. The only demographic issue raised is one of spatial distribution, in particular increasing concen-

tration of population in coastal areas and flood-prone river basins. This trend is an important factor in understanding historical impacts and future consequences of sea level rise or coastal storms. Lomborg misses an opportunity here, as population offers an example of the kind of development-policy-cum-climate-policy that he advocates. For example, education and improved economic opportunities for women will have many development benefits, while also increasing the resilience of populations to environmental stresses, and, by tending to reduce fertility, also leading to lower emissions and less climate change in the long run.

The US version of the book is a slim volume aimed at a broad audience. For those interested in a more extended argument, a longer version published in Britain by Cyan and Marshall Cavendish makes essentially the same points. But should you read either one? Think of it this way: Bjorn Lomborg is like the Oliver Stone of climate change. He has written a book that sets out to support a certain point of view, and, unless you are an expert, you will never know which facts are correct and appropriately used and which are not. You might not be aware that large (and crucial) chunks of the story are skipped altogether. But like a Stone movie, it is a well-told tale and raises some questions that are worth thinking about. So if you are going to read only one book on climate, don't read this one. But if you are going to read ten, reading Lomborg may be worthwhile. You might also consider writing one yourself: the market niche for an even-handed inquiry into the relative importance of the climate change issue is still open.

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*Valuing Children: Rethinking the Economics of the Family*

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*Valuing Children* represents the latest stage in an argument that Nancy Folbre has been making for many years. It follows her earlier book, *Who Pays for the Kids?* (1994), and her subsequent paper with Paula England, "Who should pay for the kids?" (England and Folbre 1999). The consistent argument across this series is that parents, particularly mothers, bear the lion's share of the costs of children but that employers, taxpayers, and children themselves gain the lion's share of the benefits. The contention is that this situation is fundamentally unfair and exploitative.

Folbre argues against legislation that would require greater recompense from the beneficiaries on a direct individual basis. She does not believe that children should be legally required to return benefits to their own parents on some kind of formal basis, nor does she take the more extreme position that employers should be required to provide returns to the parents of their workers. Such approaches rather obviously would involve inequities, would be administratively cumbersome, and could potentially sour relationships that are important to society. Many countries