

Population Growth and Global Warming

I've read with pleasure and great interest several of Bill McKibben's articles over the years in the New York Review, generally on environmental issues. A couple of years ago when he reviewed a few books on the theme, I was moved to respond because it seemed to me that, amidst all the public discussion of climate change and the environment generally, we hear surprisingly little about population growth. I was especially happy with this letter, not least because it got published. Below my letter is his response, printed in the Review. (Below that there's a follow-up from me, since how can you let anyone have the last word?)

New York Review of Books, Vol. 54, No. 20 · December 20, 2007

Will Slower Population Growth Stop Global Warming?

by Allen Schill, Reply by Bill McKibben (in response to "Can Anyone Stop It?")

To the Editors:

Once again a highly informative, well-written, and lively article by Bill McKibben on books with an environmental theme ["Can Anyone Stop It?," *NYR*, October 11, 2007]. Even enjoyable, notwithstanding the frightening prospects in store for the planet, even in some of the better scenarios. But it seems a crucial element has been largely overlooked in the review (not the fault of McKibben, I am sure), as in most of the recent public discussion of global warming and the growing scarcity of natural resources: population.

In the early 1970s, toward the beginning of the modern environmentalist movement, one often heard about ZPG, zero population growth, or (more ambitious yet) NPG, negative population growth. At the time there were, I think, barely four billion people on the planet, at a level of resource consumption considerably lower than today's. I recall thinking then, bad enough already the environmental impact of the developed world; how much worse will it be when the average Indian or Chinese also has an automobile, a refrigerator, and air-conditioning? (Nothing against the Indians and the Chinese as such, of course.)

I don't know where the political will might ever be found, in any country, to suppress unrestrained consumption. By themselves, higher prices for energy (and water, and food) won't do it, I'm afraid. I see little inclination, even on the part of environmentally enlightened people, to make any lifestyle choices that would entail personal sacrifice or any significant reduction in living standard (as measured by resource consumption). We'll heat the house a bit less and wear sweaters indoors in winter. We'll buy smaller cars. Seems we're all betting on technology and public policy to save our planetary butt. But is this such a good bet? Should we feel optimistic, given the worldwide political climate today?

Prudent gamblers and investors all know about hedging. Any attempt to curtail global warming or to provide renewable resources (and to make the nonrenewable ones last a little longer) will be at a grave disadvantage without a serious initiative to bring population growth under control—or even reduce it over the decades to come. Population acts (I suppose) pretty much as a simple multiplier in this massive and otherwise complex calculation whose product may well be a multifaceted global calamity (which would be a very unpleasant way to correct our overpopulation). All other factors being whatever they will be, we can only gain by having n billions of people instead of $1.2n$ or $1.5n$ or $2n$. Is this really a hotter potato than the one that would ask us to give up our cars? Bill, why aren't we all talking more about this?

Allen Schill
Torino, Italy
November 2007

Bill McKibben replies:

Many thanks to Mr. Schill for his letter. It raises a common and important point, and one I have tried to address in the past (see my book *Maybe One*). In general terms, population is one of the few major environmental trends heading in the right direction. Partly as a result of the Earth Day–era alarms that Mr. Schill describes, people in this country and then, more importantly, in the developing world itself began searching for ways to slow population growth, which was foreseen to involve an almost infinite series of doublings. The best contraceptive turned out to be education and, to one degree or another, giving women more control of their lives (though a supply of actual contraceptives was also necessary).

Despite, in recent times, ham-handed efforts by American administrations to interfere, those efforts have met with measurable success. Worldwide, the average woman in the early 1970s had close to six children, a number that has now fallen below three. World population, now over six billion, will continue to increase—to not much more than nine billion by many estimates. Most of that increase is built into the age structure of the population; i.e., the growing number of couples now coming into their childbearing years. Nine billion will be harder to support than six billion, but the momentum of population increase has been broken.

No such break has yet occurred in the consumption curve, which is bad news because, more than sheer numbers, that rising level of consumption among an ever larger portion of the world's population is what drives global warming. In fact, fossil fuel use is so low in the regions where population growth remains high (parts of Africa, for instance) that, with regard to climate change, Mr. Schill's assumption that it serves as a "simple multiplier" is happily mistaken. I must say that I've always found the contrast between these two curves odd. Intuitively, I would have expected human fertility to be hardwired in some Darwinian fashion, and consumption to be much more pliable. So far that seems not to be true—even in our country, where the effects of too much consumption are almost comically visible in oversized houses, cars, and waistlines, growth remains our credo.

I was very pleased with all this (the Review even sent me a couple of extra copies of the issue), but then wrote a lengthy follow-up (naturally not published this time) because I still didn't see how population could *not* be crucial in all this:

January 25, 2008

(To the editors: I don't suppose you will print this letter, since it is rather long, space is limited, and we NYRB readers have perhaps seen enough on this theme for now, but please pass it on to Mr. McKibben just the same.)

Dear Mr. McKibben:

Thank you for your thoughtful response (NYR, Dec. 20 2007). If you don't mind listening again, I'd like to say a few more things in turn.

Although you make it clear why consumption is a more urgent concern than population itself, for the rest of it your answer is not as encouraging as the isolated fact that "the momentum of population increase has been broken." Nine billion is indeed scary when you consider how much damage already being done with six, and with aggregate and average levels of consumption still rising steadily. I am happy to be mistaken about the "simple multiplier",

but you are thinking, it seems, of world population as a whole where this bit of math is concerned. I was thinking of the places whose populations are still increasing considerably and which at the same time are experiencing new prosperity and increased consumption: that vast middle stratum of the developing world, which will surely approach Euro-American levels of consumption (or try), without necessarily developing an ecological consciousness to go along with it and minimize the damage to the global ecosystem. It is especially here, it seems, that serious efforts at population control could have a significant effect.

This is implicit in the “bad news” you mention, that the “rising level of consumption among an ever larger portion of the world’s population is what drives global warming.” And if, as you say, most of the increase from six to nine billion is “built into the age structure of the population”, it would be wise to act immediately and hope to limit the increase to two billion or even less. After all, if most of an increase of three billion is to be the offspring of couples just now entering their childbearing years, it is because so many of them were born just a short time ago when we already should have been trying harder to deal with this problem. And of course the babies born in the coming generation will be having babies themselves soon enough – just how many is a matter of concern.

Still, where population control is concerned in this grand equation of global warming, I would hate to overlook the very poorest areas where population growth remains high just because their consumption is extremely low (and may remain so for some time to come). I’m sure we agree about the obvious ethical, humanitarian, and practical grounds for trying to improve living conditions in the worst-off parts of the world (despite the tendency to despair of ever doing so). Greater populations in these areas will compete for already limited local resources, a situation that will be aggravated by climate change and by material and commercial exploitation by the developed world, which will lead to civil and political turmoil, malnutrition, disease, war...(well, at this point I think we’re only missing the four horsemen). So I still believe that it would be a great benefit to somehow address population growth in the third world as well as the second, hoping to reduce it to rates closer to those of the prosperous first world, even if in itself this would not limit global warming by more than a hair. Or we will all suffer the consequences, those people most of all.

Although it’s hardly a perfect comparison, let me take the example of China. The catastrophic starvation of many millions after the Great Leap Forward in 1958-59 can be ascribed to the unrealistic policies that typically come of ideological extremism. The Chinese leaders realized very well their blunder, even while they suppressed the terrible news. Although I am no expert on the history of the matter, I suspect the memory of this tragedy had something to do with their policy of only one child per couple, instituted 20 years later in 1979-80. The Chinese government evidently (if belatedly) saw the advantages in controlling population growth. The rather coercive measures imposed were of course regrettable, but the Chinese had an urgent problem to deal with – how to provide for an enormous population with limited resources. Still, their efforts (from the revolution up to the present) to develop the economy, understandable and even commendable in themselves, have led to a degradation of the environment that must rank among the worst cases in the world.

Speaking of being hard-wired, I share your surprise that fertility hasn’t been quite so difficult to bring under control as we might have expected (at least in the developed world). Perhaps we are hard-wired for sexuality, but big families are “optional” (a concept with a new importance in our age of customized life-styles). On the whole we seem programmed to think of immediate personal advantage and convenience first, civic and national loyalty second, and of the welfare of the whole planet last, if ever. (In fact, birth control has been a success thanks mainly to the benefits it confers on the people who practice it – especially the women – not

because it's good for the planet.) Easter Island seems to be our role model in microcosm. Besides our indecently high consumption in itself, this hard-wired egoism is what scares me the most. To cite yet again Walt Kelly's famous line from Pogo, we have met the enemy, and he is us.

On a slightly different point, I'd like to offer a couple of comments on the kind of personal and civic involvement I think we need in order to address global warming and the environment generally. It seems to me that most Americans, and others of advanced countries, are more informed about these problems than they are prepared personally to do whatever it will take to address them (quite apart from initiatives in public policy and in common practices throughout the economy).

This would mean restraining and reducing our personal consumption of fuel and energy for transportation and heating, as well as instituting – more than we have so far – the banal but not insignificant practices of recycling, and reducing our casual overuse or waste of water and materials of all kinds. We have plenty of technical expertise, but we badly need political leadership and more stringent regulation of economic practices, and I expect this won't happen without strong public demand. I think the way to create such a demand might lie in a “grass-roots” involvement – what people incorporate into their daily routines becomes a common topic of conversation at home and in all sorts of social relations, and a focus of civic and political concern. People must think about whether they are living in a right way, and exert the force of that interest upwards and outwards as citizens. I have no idea how such a movement might be generated, however, short of a threat of imminent calamity. But perhaps a sense of urgency is developing.

We baby-boomers all remember our parents' stories about wartime rationing and scarcity – it took a major war to unify the public – but it probably still wouldn't have worked without enforced rationing. I recall a remarkable short film our high school English teacher showed us in 1969, a 1930's documentary on the construction of an irrigation system, perhaps W.P.A., for a farm in a poor rural area. We saw dozens of laborers working together vigorously, close-ups of strong backs and sweaty arms ramming shovels into the earth and operating machines. No individualization, just a total focus on the collective project, everyone gung-ho. Of course it was a work of FDR-era propaganda – but for the American faces, the laborers would have seemed a troop of Red Guards. I am anything but a Maoist, but I think it's a truly collective spirit like this that we lack, even those of us who are well-informed, and I wonder how such a thing could be inspired in our age.

No need to reply to this; I will be glad just to know that you have read it. Excuse me if I've repeated myself. I hope soon to see books and other reports in depth on the themes I have mentioned, by others far more qualified to comment than I am.

Sincerely yours,
Allen Schill

Old joke from stand-up comedy (with apologies; probably everyone has heard this one):
(With the serious tone of one reporting a very important statistical fact:)

“Somewhere in this world a woman has a baby every seven seconds.” *(Pause.)* “We've got to find that woman and stop her!”

And if you haven't already seen enough, here is yet another letter following up on the published exchange, from no less a pair of authorities than Paul and Anne Ehrlich, who wrote the book on population. I was very pleased to see it because they seemed to identify the very aspect of McKibben's response that left me just a little bit unsatisfied, and they put their argument much better (and more concisely) than I ever could have.

New York Review of Books, Vol. 55, No. 2 · February 14, 2008

The Biggest Menace?

by Paul R. Ehrlich, Anne H. Ehrlich, Reply by Bill McKibben

(In response to "Will Slower Population Growth Stop Global Warming?")

To the Editors:

Bill McKibben's reply to Allen Schill [Letters, December 20, 2007] is not inaccurate, but it fails to get to the essence of the issue. The projected 2.5 billion further increase in the human population will almost certainly have a much greater environmental impact than the last 2.5 billion added since 1975. Our species has already plucked the low-hanging resource fruit and converted the richest lands to human uses. To support the newcomers, metals will have to be won from ever-poorer ores, while oil, natural gas, and water will need to be obtained from ever-deeper wells and transported further. So-called "marginal" lands, often the last strongholds of the biodiversity on which we all depend for essential ecosystem services, increasingly will be converted into yet more crops to feed people, livestock, or (as biofuels) SUVs. These changes, plus the alterations that will be needed to cope with fossil fuel problems and new geographic patterns of drought and precipitation, will require accelerating energy use with its attendant destructive consequences for the global environment in general and climate stability in particular.

Climate change is a major threat, even if it may not be the greatest environmental problem. Land-use change, toxification of the planet, increased probability of vast epidemics, or conflicts over scarce resources, involving, possibly, use of nuclear weapons—all population-related—may prove more menacing. To ameliorate any of these threats there are no panaceas; a portfolio approach is required. And any truly effective portfolio must contain measures to slow and eventually reverse human population growth. McKibben is certainly correct that curbing overall consumption is critical. The world's poorest need more, yet the world's most affluent should use considerably less. But consumption too has a tight population connection, as McKibben himself is certainly aware. No matter how you slice it, we're living beyond Earth's long-term ability to support even the present population. It is not enough to break the momentum of population increase, we've got to move more rapidly toward population reduction.

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Bill McKibben replies:

Many thanks to the Ehrlichs, not only for their useful letter but for their long work on this question.

The point I was trying to make in response to Allen Schill is that the connection between population growth and fossil fuel use is actually quite weak—that is, heavy population growth is expected to occur in the areas where fossil fuel use is extremely low and likely to remain so. Thus, in the fight against climate change, which was the question he asked about, consumption is the first imperative. This does not change the fact that a world that strains to supply six billion with everything from water to food to school desks and hospital beds will have a harder time with nine billion.

Links:

New York Review of Books: Can Anyone Stop It? (preview only)
https://www.nybooks.com/articles/article-preview?article_id=20676

New York Review of Books: Schill-McKibben Exchange
<http://www.nybooks.com/articles/20910>

New York Review of Books: Paul & Anne Ehrlich-McKibben Exchange
<http://www.nybooks.com/articles/21043>

(These links may not be very useful, since the first will get you only a preview of the original article, and the other will give you only the exchanges you already have here.)

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