Against Sustainability

Ben Hill

Now a word *against* sustainability. Or, more accurately, against certain ideas and assumptions that the term reinforces. As a buzzword in business and academe, "sustainability" encourages resource conservation and waste reduction, but also falsely suggests that such behavior will allow humans to restore and indefinitely sustain a harmonious relationship with other life on Earth, and that Earth, in turn, will sustain six billion humans and their descendants.

The fossil record shows that species appear and evolve not by slow steady change, but through what Niles Eldredge and Stephen Jay Gould called *punctuated equilibria*: long periods of relative stability punctuated by spurts of rapid adaptation.[1] Rapid adaptation can occur locally in isolated populations, but it occurs most broadly and dramatically when entire ecosystems transform in response to environmental change. One such event, caused by an asteroid or comet impact, ended the age of dinosaurs about 65 million years ago.[2] Another, caused by people, is underway and may end the age of mammals. It is too late to prevent or reverse this process.

Most of Earth's large animals have been decimated in population and range. Key habitats are collapsing, including coral reefs, of which 60 percent are imminently threatened by human activity,[3] and tropical rain forests, of which 60 percent have already been destroyed.[4] By one estimate, species face extinction at a rate of 130 per day.[5] The atmosphere and climate have changed, and these changes are accelerating with grave implications.[6] Even with the immediate removal of humans from the system, it is doubtful that Earth's next biological equilibrium would resemble the previous one. So with a human population that grew from three to 6.5 billion between 1960 and 2005 and is projected to exceed nine billion by 2050,[7] we cannot reasonably hope to save the planet by riding the bus.

I don't mean to discourage conservation, just to clarify its limitations. Of course we should reduce, reuse and recycle when possible, because in the short term this preserves our habitat and serves our economic interests. But let us not imagine that in the bargain we are protecting the biosphere. The notion of sustainability tends to conflate these disparate problems: humanity's short-term impact on humanity's quality of life, and humanity's medium-term impact on all of life. Not only are measures in response to the first problem insufficient to the second. *Ultimately, improvements in the efficiency of human resource consumption exacerbate the ecological crisis.*Though germane to the present, this point may be easier to grasp by looking at the past. Consider the environmental problems of prehistoric humans. Even a small band of people subsisting by hunting and gathering have an impact on local resources and are limited in population by what anthropologists call the habitat's *"carrying capacity*," the number of humans supportable

per unit of land area. Suppose one member of the band learns to preserve food with salt, another institutes a program of firewood conservation, and a third invents the fishhook. Innovations that allow more efficient use of resources increase the carrying capacity. In the short term they relieve environmental pressures and create a sense of plenty. But in the medium term they lead to increases in population that restore the balance between procreation and resource scarcity. This is true whether the innovation facilitates conservation, waste management, or access to alternative resources.

Historically, the *big* innovations of animal husbandry and agriculture relieved pressure on animal and plant resources as never before and, when adopted, must have seemed like environmental panaceas. In retrospect, however, it is clear that these developments allowed larger groups of humans to live in proximity, facilitating the population explosion and setting the stage for the current crisis. Today's resource solutions can quickly become part of the problem. High-tech farming with chemical pesticides, bio-engineered crops, and hormone-treated livestock alleviates hunger by producing more food with fewer resources. But as the environmental drawbacks grow increasingly apparent, global population continues to grow in the space that high-tech farming has created, making a general retreat from these practices impossible without causing famine.

Will the day be saved by some new sustainability practice or invention? Hydrogen cars? Cold fusion? Besides facilitating population growth, even the cleanest and greenest innovations have the effect of relieving constraints on economic activities with cascading environmental consequences. Consider the low-flow toilet. Around 1970, geologists warned that water resources in the Colorado River drainage were almost fully utilized, raising questions about the viability of further development in parts of the American Southwest. Between 1970 and 2004, however, the population of Arizona tripled,[8] as residents accepted increased regulation of water resources and embraced conservation measures, including the 1.6-gallon flush.

A classic sustainability innovation, the low-flow toilet seems to spare the environment and aid other species by conserving water. In Arizona, however, it relieved the shortage of a key resource and allowed humans to go about their business and to move into the area and drive cars and build malls and play golf. In light of this, do you suppose Arizona's coyotes and cacti are really better off because of the low-flow toilet?

Although we claim to be motivated by the welfare of other species, our conservation and replacement efforts are focused on resources, like oil, whose scarcity threatens the continuance and expansion of business-as-usual for humans. The intellectual mischief in the idea of sustainability is that it allows us to believe that oil conservation is good for, say, penguins, when penguins would be better served if we immediately consumed our way into an oil crisis of devastating scope. From a penguin's point of view, the bigger and sooner the crisis, the better.

There is also mischief in the message that saving the Earth is an individual responsibility and achievable through individual restraint. Of course, individuals should strive

to conserve resources and manage wastes for the benefit of fellow humans and, in some cases, other organisms. However, the global ecological crisis was not caused by individuals following their consumptive impulses. It was caused by a species run amok through its ability to overcome natural limitations on population and power, often facilitated by the willingness of individuals to limit consumption or otherwise modify approaches to resource management. The trend of having more and more humans live with greater and greater resource efficiency is not a recipe for sustainable anything. Taken to extreme, the politics of personal sacrifice in support of sustainability could lead to a sci-fi dystopia in which a trillion people find themselves living sustainably in windowless cells, subsisting on algae pills.

A few behaviors, such as the use of disposable products, have come to symbolize man's adverse influence on nature. But *all* behaviors have environmental impacts. Eyebrows rise when party guests are served on paper plates, but not when extra dishware is manufactured, shipped, marketed, and kept in heated storage for occasional use.

It is easy to blame the canonical bad behaviors, as if everything would be fine if people stopped driving SUVs. But it is not so easy to define what "good" behavior is, when it comes to ecological consequences. I honestly don't know whether my hobby of wilderness canoeing is any better for the environment than throwing trash out of a train window. Often it is doubtful whether actions taken specifically to help the environment actually do help. Suppose that at my college we work to conserve paper. Does that really mean that some trees escape harvest? Or does the price of pulp wood drop slightly so that a Wisconsin landowner decides not to plant poplars but instead opens a skeet range to which people drive in SUVs to consume factory-made gunpowder and buckshot from strip mines? What about the money we save by buying less paper? Anything we spend it on will have an environmental impact.

People cannot live without using resources and creating waste. Nothing could be more natural, instinctual even, than our drive to consume resources for the improvement of our lives and the lives of our communities. In general, the more active, creative, and productive we are, the more we consume and pollute. The effect is multiplied when we spend or even donate money, because this stimulates productive behavior by others.

It is sobering to realize that, regardless of our beliefs and practices, the amount of money we spend is a rough measure of our environmental impact. Compared to any poor person, a wealthy environmentalist consumes more resources and creates more waste.

Can individuals help by choosing not to reproduce? Even assuming they don't spend the cost of childrearing on other consumptive pursuits, the environmental benefits will be local in space and time unless all humanity joins in reducing both population *and* consumption. China's one-child policy has been successful in inhibiting population growth, but during the same years that China's birth rate fell, her oil consumption grew rapidly and is currently expanding at a blistering 7.5 percent annually, seven times the U.S. rate.[9] And China's population is still growing in absolute terms at a rate of one

person every four and a half seconds.[10] An effective reversal of human overreach on the planet would involve reductions in standard of living and life expectancy, as well as in population. It is difficult to conceive of such a course being taken voluntarily. Certainly nothing of the sort is contemplated under the banner of sustainability.

I don't mean to sound apocalyptic. As I write, the world outside my window is awash with life and intensely hospitable. I am optimistic that my son, born in this century, may live his entire life in a world abundant to his needs. Though I do not believe his generation will be able to reverse the biological revolution underway on the planet, I do not doubt that they will manage its effects ingeniously. Nor, when I impugn our ability to save the Earth, do I mean literally that the planet itself is threatened. We are in the process of destroying life-as-we-have-known-it, but the planet and life-in-some-form will certainly endure. Earth, in time, will deal with its human problem.

On the time scale of centuries, this human-caused punctuation will continue, likely experienced by humans not as a single asteroid-esque cataclysm, but as a protracted series of crises—meteorological, epidemiological, nutritional, nuclear. On the scale of thousands of centuries, a moment in planetary terms, life will find a new equilibrium in which species and ecosystems of unprecedented complexity may emerge. Humans or adapted humans may be part of this new order, but only if somehow constrained against overpopulating.

Meanwhile, back on the scale of years and decades, let us strive to live well and responsibly. It is within our power to respect the Earth and to dwell here compassionately and intelligently, with humor, humility, restraint, and imagination. But not sustainably.

Notes

[1]The seminal paper is Niles Eldredge and Stephen Jay Gould, "Punctuated Equilibria: An Alternative to Phyletic Gradualism, in *Models in Paleobiology,* 1972. For a broader discussion see Niles Eldredge, *Time Frames*. New York: Simon and Schuster, 1985.
[2]See for instance http://www.enchantedlearning.com/subjects/dinosaurs/extinction/Asteroid.html
[3]Dirk Bryant, Lauretta Burke, John McManus and Mark Spalding, *Reefs at Risk: A Map-Based Indicator of Potential Threats to the World's Coral Reefs*. World Resources Institute, 1998.
[4]Norman Myers, *Deforestation Rates in Tropical Rainforests and their Climatic Implications*. Friends of the Earth, 1994.
[5]Edward O. Wilson, *The Diversity of Life*. Boston: Harvard University Press, 1992.
[6]See for instance http://www.ncdc.noaa.gov/oa/climate/globalwarming.html#Q2
[7]U.S. Census Bureau, International Data Base, 4/26/2005. See http://www.census.gov/
[8]From 1,775,000 to about 5,830,000. See http://www.commerce.state.az.us/prop/eir/popanddemo.asp.
[9]Gal Luft, *Fueling the Dragon: China's Race into the Oil Market*, Institute for the Analysis of Global Security, http://www.iags.org/china.htm
[10]See http://www.cpirc.org.cn/en/eindex.htm

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