# GLOBAL WARMING AND POLITICAL POWER

## *The End of Nature* and Beyond

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*In 1989,* The End of Nature *warned about the onset of global warming. Rereading it today, that warning seems more a background illustration of a larger message: We have grown collectively as large and powerful as any force of nature. In wrestling with that revelation, Bill McKibben called into question the collective self-image we have nurtured since we first became a civilized species. His deeply personal expression of the profound spiritual crisis that understanding engendered makes this book an extraordinary piece of literature. Its primary shortcoming, in this author's view, is his attribution of the crisis to an antiquated set of human values that prevents us from fully understanding the new context in which we live. But he perhaps may be underestimating a much less ephemeral obstacle: the obstruction of large and determined economic interests, the survival of which depends on our failure to acknowledge our profoundly altered relationship with nature.*

Rereading *The End of Nature* (McKibben, 1989) 15 years after its debut is not unlike revisiting one's childhood home. Everything is the same; everything is different. When I first read it in 1989, this profoundly shaking book left me with a sense of overriding dread. The planet was warming rapidly. Huge changes threatened to overwhelm our civilization. Oceans were swelling with heat—and would continue to rise for at least a century. It confirmed and amplified what I had heard the previous year when James Hansen warned a Congressional committee that global warming was at hand.

But I also distinctly recall a surge of relief after reading McKibben's (1989) book. I thought back then,

> Thank God, this issue of global warming is now out in full view. As dire as this situation may be, the fact that it was published in so visible and prestigious a venue as *The New Yorker* means that the world will now deal with this problem.

In the last 7 years, I have written extensively about the issue of global climate change, primarily because my early reaction to *The End of Nature* (McKibben, 1989) was so terribly wrong. Despite the ceaseless accumulation of evidence—in the science that has become unassailably robust and the impacts that have become undeniably visible—the world has done nothing of consequence to address this issue.

Its message has been reinforced by a succession of new and progressively more dire research findings that surface almost on a monthly basis. These findings represent the work of more than 2,000 scientists from 100 countries reporting to the

*Organization & Environment*, Vol. 18 No. 2, June 2005 186-192
DOI: 10.1177/1086026605276008

United Nations's Intergovernmental Panel on Climate Change (IPCC) in what is the largest and most rigorously peer-reviewed scientific collaboration in history.

But back in 1989, this issue was nonexistent in the public consciousness. As our postwar prosperity was cresting, as the Communist empire was crumbling, as the industrial age was morphing into an electronic future of unlimited promise, Bill McKibben had the temerity to tell us that our notion of progress is not ordained, that unlimited economic growth is a destructive fantasy, that some of our most cherished values are threatening the physical foundations of our social existence.

Stop for a moment and realize this: The IPCC came into existence in 1990. Its members did not even determine categorically that humans are changing the climate until 1995. In other words, before there was the collective brainpower of the IPCC, there was the heart of Bill McKibben. Above all else, *The End of Nature* is a product of inestimable courage.

It was something of a revelation to discover, 15 years later when I reread *The End of Nature* (McKibben, 1989), that this book is not really about global climate change. Today, the book seems first and foremost a deeply personal reaction to the historically immense disorientation that comes from learning that we have grown collectively as large and powerful as any force of nature. It is a cry borne of the stunning recognition that our routine activities are leading to truly catastrophic consequences. Against a background of gathering climatic instability, *The End of Nature* represents one man's wrenching effort to wrestle with something as huge and intractable as the collective self-image we have nurtured since we first became a civilized species—one that, sometime in the recent past, we outgrew without even noticing it—until Bill McKibben called it to our attention.

Before there were systematic attempts to identify atmospheric carbon thresholds and document the intricate dynamics of climatic feedback mechanisms, there was a writer in upstate New York with the soul of a preacher and the spirit of a deep ecologist who was possessed with a message of overriding importance. That message begins with the astonishingly simple observation that, despite all the dazzling technological accomplishments humanity had created by the end of the 20th century, we still had not learned how to tell time. And it includes the fact that, although we have seen photographs of this wisp-veiled marble of a planet glowing in a sea of black space for more than 30 years, we still have not learned the combined lesson of all our maps: This earth is far smaller and more finite than we have allowed ourselves to acknowledge.

Still, despite McKibben's efforts to explain what he means by the phrase, "the end of nature," the title nags. It does not mean we have eliminated all natural, nonhuman forms of life. Nor does he mean that we have obliterated what we conceive as eternal cycles of nature. As erratic and disturbing as they have become, we still live in years marked by seasons.

What he means is that:

> We can no longer imagine that we are part of something larger than ourselves—that is what all this boils down to. We used to be. When we were only a few hundred million, or only a billion or two, and the atmosphere had the composition it would have with or without us . . . there was the possibility that something larger than us . . . reigned over us. . . . But now we make that world, affect its every operation.
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> As a result, there is no one by our side. . . . And there is nobody above us. . . . Our actions will determine the level of the sea, and change the course and destination of every drop of precipitation. This is, I suppose, the victory we have been point-

> ing to since the eviction from Eden—the domination some have always dreamed of. But . . . it is a brutish, cloddish power. . . . We sit astride the world like some military dictator—we are able to wreak violence with great efficiency and to destroy all that is good and worthwhile, but not to exercise power to any real end. (McKibben, 1999, pp. 83-84)

Curiously, many recollections of *The End of Nature* (McKibben, 1989) ignore McKibben's prescient nod to the then-emerging field of genetic engineering as perhaps an even more ghoulish exercise of power—more ghoulish because, although the heating of the atmosphere was an accident, the tinkering with nature's building blocks was what McKibben called an ultimate act of deliberate defiance. Our presumed domination of the natural world has seamlessly led to the complacent assumption that we can simply manage the planet indefinitely into the future, as though nature existed solely to provide the passive and malleable material base for the human enterprise.

But we have paid a steep emotional price for this newfound power. Like it or not, we have outgrown our long historical childhood. As we have emerged into this newfound adulthood, there are no precedents. We have neither parents to guide us nor texts to instruct us. We have immense power—and precious little knowledge. We are left with the excruciating and indelible realization of our cosmic loneliness.

But back in 1989, it was the other message that captured the public imagination—the early, incomplete, occasionally mistaken, and utterly compelling warning about the speed with which we are changing the climate. In short order, *The End of Nature* (McKibben, 1989) was followed by other books: *Dead Heat* (1990) by Dr. Michael Oppenheimer and Robert Boyle, *Global Warming* (1989) by Dr. Stephen Schneider, *Earth in the Balance* (1993) by Al Gore, and *The Change in the Weather* (1999) by former *New York Times* reporter Bill Stevens, as well as my own contributions, *The Heat Is On* (Gelbspan, 1997, 1998) and *Boiling Point* (Gelbspan, 2004). Although some of these books were extremely informative, few approached the depth of passion, the intensely personal struggle to make sense of this change, that characterizes *The End of Nature*. Simply put, Bill McKibben is the godfather of all the popular works of climate literature that have followed his first book.

It is striking, on rereading *The End Of Nature* (McKibben, 1989), to realize how rapidly the science has progressed. Several years after the book's publication, scientists incorporated into their calculations the short-term cooling offsets of sulfur emissions—a process that snapped the earlier, more suspect climate models into focus. Six years after the book's publication, Tom Karl and his colleagues at the National Climatic Data Center verified that a warming atmosphere is altering drought and rainfall patterns and generating more extreme weather events.

Still, there is an element of nostalgia in *The End of Nature* that is consistent with McKibben's (1989) orientation as a nature writer—but less consistent with what we have learned from the science of paleoclimatology. For instance, he wrote, this newly altered nature:

> won't be predictably *anything*, and therefore it will take us a very long time to work out our relationship with it, if we ever do. The salient characteristic of this new nature is its unpredictability, just as the salient feature of the old nature was its utter dependability. (McKibben, 1999, p. 96)

But this ignores the fact that we emerged as a socialized species some 35,000 years ago—complete with language and culture—into climate hell, a world marked by

wild swings between warm periods and recurring ice ages. I doubt our earliest ancestors would have characterized their environment as dependable.

That same nostalgia seems also a bit misleading about our current and future relationship with the natural world. In McKibben's (1989) eyes, our industrial development (together with the growth of our population) has led us to the point that we now influence many fundamental physical aspects of the planet. We have, he wrote, "marred a great, mad, profligate work of art, taken a hammer to the most perfectly proportioned of sculptures" (1999, p. 86).

But the assumption that we have succeeded in subjugating nature seems inaccurate in its underestimation of nature's forcefulness, resilience, and autonomy. McKibben (1989) seems to imply that our relationship to nature operates in one direction: Humanity inflicts wounds and alterations on nature that she accepts with a kind of uncomplaining passivity.

But our recent experience tells a different story. As we continue to pump gasified carbon and other greenhouse gases into the atmosphere, nature is beginning to respond with a furious energy. Storms are becoming more violent, droughts more prolonged, downpours more torrential, and heat waves more intense. As we humans heat the far North and melt the polar ice, nature repays us—at least in the short term—with crueler, more severe winters, as the melting ice chills the south-flowing currents from the Arctic Circle and the northeasters whip the cold air into bitter and seemingly interminable winters.

All this is to say that nature is more than just a passive victim. As Rachel Carson (1962) pointed out, nature fights back. And it may just be that McKibben's (1989) lament for the passing of wild nature is premature. In a short time, we may well be experiencing the wildness of nature—not in vast pristine tracts of untouched wilderness but in progressively more intense weather extremes, in wildly shifting ocean currents, and in far more severe and unpredictable upheavals for which our civilized experience has left us truly unprepared.

The coming changes that will make the biggest headlines will not be the increasing extinctions of species, the changes in the timing of the seasons, or the gradual transformation of forests into grasslands. What will grab our attention will be increasing upheavals from natural disasters—deaths from disease and starvation, wars over diminishing resources, and refugees from homelands submerged by rising sea levels. Rather than marking the end of nature, the accelerating pace of climate change may rather mark the resurgence of nature as a far more threatening and hostile force. Global warming will not destroy nature, but it does promise to destroy our highly organized, complex civilization unless we quickly develop a newfound respect for nature's arsenal of retaliatory responses.

In retrospect, another striking feature of *The End of Nature* (McKibben, 1989), in the eyes of a longtime investigative reporter, is its search for explanations in theology and personal values—without adequately acknowledging a basic economic driver of the problem.

McKibben (1989) takes us to task for our insane belief in the possibility of unlimited economic growth in an environment with increasingly obvious limits. He attributes this apparently irrational behavior to our limited conceptions of time and space. But that explanation ignores a major source of political and economic power whose precise goal is to perpetuate this behavior—and all the false and reckless assumptions on which it rests. Nature's requirement for a stable climate—70% reductions in our use of carbon fuels—threatens the survival of one of the largest commercial enterprises in history. Big coal and big oil together account for more

than $1 trillion in commerce every year. As a result, the fossil fuel industry has pulled out all the stops in trying to persuade the public that climate change is of negligible importance. It has secretly paid a few renegade scientists to say it is not happening. It has funded senators and congressmen to block attempts to reduce our carbon emissions. Its manipulation of the public discourse and the political process truly amounts to an assault on the democratic process, if not a crime against humanity.

A central plea in *The End of Nature* (McKibben, 1989) is that human beings begin to see themselves not as the centerpiece of the natural world but rather as a one small link in a natural web that is exquisitely interrelated and specifically nonhierarchical. And that change of self-image depends on our preservation, if not of acres of wilderness, at least of the idea of wilderness. "The earth and all its processes—the sun growing plants, flesh feeding on these plants, flesh decaying to nourish more plants, to name just one cycle—gives us some sense of a more enduring role" (McKibben, 1999, p. 73). We must, he says, value the manifestations of nature, not because they offer us the promise or food or medicine or shelter, but simply because their very existence demands our respect. On a personal level, for McKibben and his family, that translates into "pruning and snipping our desires"—driving less, turning down the thermostat, scrimping on energy use, and incorporating restraint as a guiding principle of personal lifestyles.

But there is an alternative response—one that is less personal and more political. Unlike many other environmental problems, climate change cannot be solved by lifestyle changes alone, especially when one considers the coming pulse of carbon from India, China, and all the developing countries struggling to stay ahead of poverty. Unfortunately, even if all of us in the wealthy world were to sit in the dark and ride bicycles, it would not significantly arrest global warming.

I believe the solution lies more in the arena of political action. When *The End of Nature* (McKibben, 1989) first surfaced, it caught us all by surprise. We did not know we were reversing the carbon cycle and causing the oceans to rise. Fifteen years later, this knowledge sits at the center of a bare-knuckle contest that pits the ability of this planet to support our complex, highly organized civilization against the survival of one of the biggest commercial enterprises in history.

From this point of view, political action seems more important than lifestyle changes. At least at the immediate level of climate change, the solution lies in a switch to noncarbon sources of energy. They exist today in the form of solar panels, windmills, hydrogen fuel cells, tidal-power generators, and numerous other sources of power. This is not an issue of science, nor is it any longer an issue of technology. It is an issue of popular will and political power. Given McKibben's (1989) warning, what is needed is a mass movement to force the world's energy giants to provide us the kinds of power sources that will allow us to flourish without truncating our futures and trashing what is left of our natural world.

Part of our basic humanity, according to McKibben (1989), comes from our very idea of nature. But there is another idea that is central to our humanness as well: the idea of history. We owe a huge debt not only to nature's creation but also to all those generations of women and men who have worked so hard to create this civilization we enjoy today. And even as we measure the health of nature by the resilience of its systems, we judge the periods of our history according to an intrinsic conception of justice.

The task McKibben sets for us is formidable. It requires us to take a step upward on the ladder of social evolution. The lesson of *The End of Nature* (McKibben,

1989) today is that our future depends on our ability to marry our idea of nature, with its implication of divinity and its imperative of humility, to our idea of history, with its values of community and human empathy. Our failure to meet this challenge will inevitably sentence us to a progressively more degraded and combative future of alienation.

*The End of Nature* (McKibben, 1989) is far more than a book. It is an act of creation that evokes layers upon layers of reflection. Back when it was published, it was a severe jolt to the public consciousness—a resonant warning that we are rushing toward a cliff.

*The End Of Nature* (McKibben, 1989) may be one of the most profound laments in modern literature. Its grief is made all the more penetrating by the unpretentiousness of its author. Reflecting on the genesis of the book, McKibben (1999) recently wrote,

> The sadness that drove me to write this book in the first place has not really lifted. . . . We didn't create this world, but we are busy decreating it. . . . This buzzing, blooming, mysterious, cruel, lovely globe of mountain, sea, city, forest; of fish and wolf and bug and man; of carbon and hydrogen and nitrogen—it has come unbalanced in our short moment on it. It's mostly us now. (p. xxv)

But there is more to this book than its lamentation. There is another take-home feeling that comes with rereading *The End of Nature* (McKibben, 1989). In the 15 years since this book was written, politicians have temporized. The press has turned its back on perhaps the biggest story in human history. The captains of big coal and big oil have relentlessly blocked every effort to find a viable substitute for our lethal carbon-based energy diet. The majority of the public persists in denying a monstrous and looming reality that will shortly eclipse its most noble collective aspirations.

My reaction on first reading *The End of Nature* (McKibben, 1989) was an experience of the deepest kind of sadness. Fifteen years later, my reaction to rereading this classic is simply rage.

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