Climate change and the unraveling of creation: Taking a global inventory

by Bill McKibben in the December 8, 1999 issue

Ten years ago I wrote a book called *The End of Nature*, which was the first book for a general audience about the question of global warming. At the time, climate change was a hypothesis. By burning fossil fuels and thereby emitting great quantities of carbon dioxide, human beings would trap heat near the planet's surface, changing its weather. A strong hypothesis, but a hypothesis nonetheless. The appropriate response to that hypothesis was more study, general concern, and the beginning of modest action in the event that the hypothesis was correct. I was, on the one hand, extremely scared by the research I'd done; on the other hand, I was confident that, at the very least, a serious discussion was under way.

Ten years have passed since global warming first appeared in the general consciousness. And in that time science has done its job, which is to turn hypothesis into either truth or falsehood. In this case, the vast—the overwhelming—scientific consensus is that global warming is real, dangerous and immediate. The International Panel on Climate Change, a body of the world's foremost climatologists convened by the UN, has concluded that we will raise the planet's average temperature four or five degrees in the next century.

What's more, those ten years have seen the world begin to change in the most fundamental ways. This decade has had seven of the ten warmest years on record. Last year, by a very large margin, set new records for heat. And when you change the climate, you change everything else. Warm air holds more water vapor than cold air: hence you have more evaporation and more precipitation. That is to say, more drought and more flooding. Which is just what we have seen this decade: last year alone, for example, 300 million human beings (about one in 20) had to leave their homes for a week, a month or forever as the result of some "natural" disaster. This is by far the highest number on record.

The total property damage from such events topped $96 billion, beating the old record—set in 1996—of $60 billion. Hurricanes are becoming more powerful and more common; the ranges of plants and animals are shifting north, often into oblivion; disease-bearing insects are spreading to new places; agriculture is becoming ever riskier. Think of the speed with which this is happening. Spring now comes a week earlier across the northern hemisphere than it did 30 years ago. This is an unbelievably large change for such a basic physical phenomena. And all this with about one degree of global average temperature rise—a fourth or a fifth of what we can expect in the lifetimes of many of us.

Or, to use a different phraseology: In the beginning there was a lush and green earth, and it swarmed with so many creatures that no one could start to count them. It was filled with the drama and delight of the whale and the coyote and the swarming bee, of the monarch butterfly and the human child and the towering white pine. Then people said: we will burn coal, vast quantities of it. And as the temperature rose, the waters began to bleach the coral reefs, wiping them out by the score and the hundred and the thousand.

And then people said: we will burn oil, vast quantities of it. And the temperature rose, and with it both the level of the sea and the chance of deluge. And so, for instance, the people and the animals of the Brahmaputra Delta in Bangladesh found their area submerged under three and four feet of water for months on end—poor people pushed even farther out on the margin.

And then the people said: we will drive cars everywhere we go—the bigger the better. And as more energy was trapped near the earth's surface, the great forests of the planet began to dwindle, stressed by the heat that left them rooted in what had become the wrong place. And the permafrost of the tundra began to melt, and the great glaciers of ice and rock.

We are engaged in the swift and systematic decreation of the planet we were born onto. And does God look at our actions and pronounce them good? I doubt it. Forget the sterile debate about whether we were given dominion over this planet. Grant that we were. The question is, what have we done with that dominion? In the past 30 years we have ever more rapidly destroyed its inventory of life: whole chains of DNA are wiped out each day as tropical forests fall, chains of created life that will never be appreciated even by a lonely taxonomist in some university lab. We are wiping out whole ecosystems—coral reefs, the cloud forests of the Andes. In 40 years,

Glacier National Park will have no glaciers. Even the seasons have been altered by our species in one generation.

Different eras produce different questions of moral transcendence, questions so urgent that they must be answered then and there. The first part of the 19th century saw the question of slavery, long a routine part of human history, become an issue of such transcendent importance that it ignited a horrible war. That fight was mandatory; to duck it was to choose sides.

The middle of the 20th century saw the rise of Hitler. Our parents and grandparents did not ask for him to come, but come he did, and there was no choice but to vanquish him. It was a struggle of moral transcendence—exactly how transcendent we discovered in its aftermath, with the liberation of Dachau and Auschwitz.

In this nation, in the years after the war, the civil rights movement confronted us with the same kinds of inescapable moral questions, demanding the same kinds of engaged answers. It is a struggle that continues to this day, as more and more oppressed people demand their liberation.

I suggest that in our time the morally transcendent question is whether we will stop this decreation before it goes further; whether we will take the steps--and some of them will be difficult steps--to preserve God's creation in as intact and integral a form as is still possible. Or whether we will watch as it unravels—which is what we are doing so far.

You will notice, though, that the environmental question is different from the other morally urgent questions I have described in that it does not center on the relationship between peoples but between people and nature. Is it nonetheless a theological question, a question for people of faith and of the Bible? It is, I think, and our tradition is full of resources to help us understand that. We've focused for millennia on the relationship between peoples, and between people and God. But this third relationship—between people and the natural world, and thus indirectly with God and with other people—has suddenly emerged as an emergency.

For me, its theological meaning can be summed up as follows: One species is now beginning to control everything around us. The only "acts of God" left are earthquakes and volcanoes; those are still "natural disasters," but everything else is at least in part our handiwork. And that results in, and will increasingly bring, a very different-feeling world.

Let's turn for a moment to the Book of Job, which will be to the emerging environmental theology what Exodus was to the theology of liberation. God's speeches from the whirlwind represent the first nature writing and probably the best. Since it was written, Job has troubled the rabbis and the theologians because it is unlike anything else in the Bible. To me, it seems like a time-capsule message, hidden in our tradition for this moment in time, designed to show us precisely the outlines of our current folly.

Job was not a patient man. When he was plagued by troubles, he demanded an interview with God. And he got it. In fact, he got by far God's longest speech. And what was it? A gorgeous and sarcastic tour of the physical universe, designed to show Job that man was one small part of a very large picture. (The translation is from *The Book of Job*, by Stephen Mitchell.)

> Where were you when I planned the earth?
> Tell me, if you are so wise.
> What were its pillars built on?
> Who laid down its cornerstone,
> while the morning stars burst out singing
> and the angels shouted for joy!
>
> Were you there when I stopped the waters,
> as they issued gushing from the womb?
> When I wrapped the ocean in clouds
> and swaddled the sea in shadows?
> When I closed it in with barriers
> and set its boundaries, saying,
> Here you may come, but no farther;
> here shall your proud waves break.
>
> Have you seen where the snow is stored
> or visited the storehouse of hail
> Where is the west wind released
> and the east wind sent down to earth
>
> Who cuts a path for the thunderstorm
> and carves a road for the rain,

to water the desolate wasteland
the land where no man lives
to make the wilderness blossom
and cover the desert with grass

Who gathers up the storm clouds,
slits them and pours them out
turning dust to mud
and soaking the cracked clay?

Always before this logic was insurmountable. Job pretty much said, Can I sit down now? . . . sorry I bothered you. But no longer. Who sets the boundaries for the oceans? Increasingly, we do. The best estimate is that the sea will rise about three feet in the next century. And even a one-foot increase is enough to bring the sea in 90 feet across most American beaches. Who determines when it rains, and how much? Increasingly we do. The most recent studies show that extreme precipitation events—rainfalls greater than two inches in 24 hours—have increased 20 percent across this hemisphere. As Thomas Karl of the National Oceanic and Atmospheric Administration said, "When we look out the window now, some of the weather we see is caused by us. In 50 years, a lot more of it will be caused by us." No need for us to endure God's sarcasm: Rain r Us, Snow r Us, Warmth r Us. We have unhinged the most visible reminders that we are creatures of God. Some of that is by design—the spread of genetic engineering with barely a thought for its meaning should give us great pause. But most of it is by accident, with our disruption of planet's climate and hence its fauna, its flora, its hydrology.

If you do not think that will represent a severe challenge to our understanding of what it means to be children of God, I invite you to go through the hymnal, crossing out the songs and stanzas that witness to God's power through thunder, wind, sparrow, whale, sunlight, springtime. There are, of course, other evidences of God's love around us, principally the unselfish love of humans for other humans. But perhaps this does not exist in such overabundance that we can afford to jettison the testimony of creation. If we create a world without wilderness—and that is precisely what we are doing—then we lose a critical locus for the radical encounter with the divine. The Jews needed the wilderness. Jesus needed the wilderness. We don't.

It is true, thank God, that as some sense of our troubles has begun to spread, people have begun to respond. There have been books. Theologians and physicists have

collaborated on new cosmologies and conferences by the hundreds and the thousands. We have worked hard on the personal, on helping start a change in consciousness that will lead, someday, to less consumption. (See my "Who stole Christmas?," December 2, 1998.) Although our efforts are nowhere near enough, they will eventually pay off; it is hard to imagine that a hundred years from now we will still be entertaining ourselves with manic and often joyless consumption.

But we do not have until "eventually" to deal with climate change. We have the next 5, 10, 15 and 20 years to make the basic decisions. A coal-fired power plant built next year will spew carbon dioxide into the atmosphere for at least four decades; once it is built, the cost of its construction alone will guarantee that it will be used, that its output will not be replaced with solar- or wind-generated energy. We have already wasted a decade. In 1990, President Bush at Rio promised that in the year 2000 we would release no more CO2 into the atmosphere than we did in 1990; it was a pledge that President Clinton repeated on taking office—a modest but prudent promise, given the level of uncertainty that then marked the science. But even as the science has grown unimpeachably solid, the political response has grown less vigorous. Clinton and Gore did next to nothing—as our economy boomed, so did our use of fossil fuels, so that next year we will release nearly 15 percent more CO2 than we did a decade ago.

The time has come to take those cosmologies and conferences, those books and speeches, and start the work of translating them into politics. Just as at some moment the rhetoric and passion and sheer truth of the civil rights movement had to be translated into the Voting Rights Act, so we must now figure out how to force real and quick change. The solutions are not impossible to find. In fact, everyone knows what they are. We need to end the subsidies for, and increase the taxes on, fossil fuels so that their price will rise and alternative clean technologies will become competitive. And we need to spread those clean technologies abroad, with a giant program of international aid and cooperation, so that the developing nations do not follow our energy path. And we must do it fast, for every year that we can speed the process will allow us to lower the final zenith of CO2 in the atmosphere, allow us to prevent some damage, allow us to hasten the time when humanity again can become just one player in a created world.

As a first step, we must make Congress consider the Kyoto treaty, which calls for a 5 percent reductions in carbon emissions by 2010. It's not a great treaty—in fact, since scientists say we need to cut emissions by 80 percent immediately, it's barely a

start. And at the moment, the Senate, dominated by entrenched corporate forces, would defeat it. But that is OK—voting rights did not pass the first time either, and it took several iterations of the act to make it strong enough. At least we would have started.

How to do it? The powers in opposition are strong, but they are not omnipotent. Sooner or later the coal lobby will be beaten; the job is to do it sooner. We need teach-ins and sit-ins, letter-writing campaigns and political campaigns, loud speeches, anger, humor, desperate work.

And we need the church. In some of the struggles I've described, the church has led the way—abolition and the civil rights movement were both inextricably linked to the church. In the case of the environment, the church's leadership is absolutely mandatory. There is no other force left in our society that is able to say: Some things are more important than endless economic growth. Some goals are more important than endless accumulation.

Our story begins with the account of creation. Since we happen to be alive in the two- or three-decade period of decreation, we have to do all that we can, whatever the cost, to defend God's work. Forget about teaching creation in the schools; in our time the task is to preserve creation on the planet. Creation is not an artifact of history. It is all around us, and it is being destroyed. Saving it is our task.