

A Sustainable Environment: Our Obligation to Protect God's Gift

by
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What is the Future Relative to Climate Change?

While most of the U.S. is experiencing a very cold winter with excessive quantities of snow, many people are beginning to question as to whether global warming is for real. Of course the answer to these deniers is that deviations from a trend will always occur.

In order to consider what to expect in the future relative to global warming – or climate change – let's consider three important numbers. These were recently presented by Bill McKibben, founder of 350.org and the world's most prominent climate campaigner. There have been numerous meetings of climate experts from worldwide countries, and at the 2009 meeting in Copenhagen one of the goals agreed upon by all the attendees is to limit the temperature increase to a maximum of 2° C. which is equal to 3.6° F. Agreeing to reduce emissions so as not to exceed this temperature increase is commendable, but this level of increase may be found to be unacceptable. Even this small increase could cause major environmental problems.

In order to have some certainty of not exceeding the maximum temperature increase, we must restrict the emission of carbon dioxide to less than 565 gigatons – 565 billion tons. That's humanity's carbon "budget"—how much carbon dioxide we can pour into the atmosphere with a reasonable chance of keeping global temperatures to a maximum of 2°C. increase. That 565 gigatons sounds like a lot until we learn that global carbon dioxide emissions rose by 31.6 gigatons in 2011 alone, and that projections call for humanity to blast through our 565-gigaton quota in less than 16 years. Then what happens?

We need to address another number which will make this issue even more frightening. That number is 2,795 gigatons. It represents the stored carbon in reserves held by coal, oil, and gas companies, as well as countries like Saudi Arabia and Kuwait that are similar to energy companies. This number was first highlighted by the Carbon Tracker Initiative, a group of London financial analysts and environmentalists. In other words, the fossil fuel industry already has plans to exploit five times as much carbon as can be burned without exceeding the 2°C ceiling. Burning these fossil fuels would enter the world into a dystopia of climate science fiction—a rise in sea levels not seen in human history, species extinction, droughts, superstorms, heat waves from hell, coral kill-offs, and consequences we cannot yet imagine. Look what has happened to the Arctic Ice sheet over the past 30 years. Both the area coverage and thickness has been decreasing about 5% per year. Australia just experienced the warmest year on record where it experienced 2013 being about 2° F. warmer than the average of the previous 40 years and almost 1° F. warmer than the previous record. And it may get worse.

The problem we are facing is that extracting and burning the oil, gas and coal that is currently in reserve is factored in the value of the energy company. Basically, they are planning to extract this fuel and burn it. We need to have 80% of this fuel to remain in the ground, but that would be the equivalent of these companies writing off \$20 trillion. Do you think they will do it? Not only are they not planning to write off the burning of this fuel, they are spending money to increase their reserves. For example, Exxon is spending \$37 billion this year to increase oil production.

So many environmentalists want to “be positive” and concentrate on alternatives: everything from buying locally to stepped-up recycling, planting more trees, and developing greener sources of energy. No doubt, it’s crucial to imagine and work for alternatives. But for any of this to make a difference, we need to recognize fossil fuels—and those who exploit them—as immediate and staggering threats to life on Earth. One clear implication is that we cannot nice our way out of this. We have to educate and enlist everyone in imagining a very different future in terms of energy use and fighting to make that happen. We need to adopt renewable energy systems as quickly as possible to minimize the emissions of carbon dioxide into the atmosphere.