

by Shawn\_Dell\_Joyce

Our Earth is the playing field, the staging ground, the backdrop of our lives, our hopes and dreams and all our human dramas. In the words of the late Carl Sagan, "Every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every 'superstar,' every 'supreme leader,' every saint and sinner in the history of our species lived there — on a mote of dust suspended in a sunbeam."

When Carl Sagan saw this photo of the Earth sent by Voyager 2 from 4 billion miles away, he likened the Earth to a "mote of dust suspended in a sunbeam." Two numbers stand between our busy lives on this fragile blue planet and Sagan's "great enveloping cosmic dark": 383 and 350.

Since the beginning of the Industrial Age, all our human activity has generated carbon emissions, which have raised the level of atmospheric carbon to 383 parts per million. Leading climatologists and environmentalists, along with NASA scientist James Hansen, say we need to reduce that number to 350 ppm to avoid a series of cataclysmic climate tipping points, such as the loss of glaciers and sea ice, which, because they reflect sunlight, causes the oceans to warm and rise more quickly; the defrosting of permafrost, which releases tons of methane into the atmosphere; and the acidifying of oceans. These tipping points are like sprinkling Miracle-Gro on climate change.

Hansen told a panel of scientists at an American Geophysical Union conference that there is a "huge gap" between what scientists understand about global warming and what the public knows about it. He said, "We are closer to a level of dangerous, human-made interference with the climate than we realize."

But we haven't passed the point of "no return." "Not quite," said author and activist Bill McKibben in a recent Washington Post column. "Not any more than your doctor telling you that your cholesterol is way too high means the game is over. Much like the way your body will thin its blood if you give up cheese fries, so the Earth naturally gets rid of some of its CO<sub>2</sub> each year. We just need to stop putting more in and, over time, the number will fall, perhaps fast enough to avert the worst damage."

Is our nation going to take Hansen's advice and lower its carbon emissions? Congress is mulling over laws to

cap carbon emissions and reduce climate change right now. After years of virtual inaction, government finally is stepping up to meet the climate crisis. Change must happen not only at the national level but also at the personal level.

This year, make an Earth Day pledge to do your part to reduce carbon emissions. If you change a few habits at home, you can lower your carbon footprint dramatically.

â€”Try grocery shopping at the local farmers market, and meet the people who grow your food face to face. If you sourced most of your food within a 100-mile radius, it would curb up to 17 percent of your household carbon emissions.

â€”Improve your home to Energy Star standards or better. Using energy more efficiently is the best "bang for the energy buck." Energy efficiency could save you greatly on your home heating and electric bills and help curb up to half your carbon emissions.

â€”Trade in your car for a bicycle whenever possible. Permanently parking your car would curb one-fifth of your carbon emissions.

â€”Use your Yankee ingenuity to fix or repair consumer goods instead of buying endless streams of Chinese imports. Buy it used; buy it local; or skip it, and make do.

It took 3.5 years to transition to a wartime economy during World War II. It is time to tap that collective well of inner strength to meet the challenge of our changing climate. In Carl Sagan's words, "We are the only force in the universe capable of saving us from ourselves."

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