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# The Weekly Planet: A look back, a look ahead

### Dr. Alan Betts

As we look back on 2007, what strikes you as the most important environmental event?

Do you remember the extraordinary warmth of January 2007? In the first 10 days of that month, I managed to turn over most of the rye cover crop in my garden in Pittsford. The whole of Eurasia saw record temperatures that month, as well. Do you remember that an astonishing 40 percent of the Arctic ice cap melted by September, and how this contributed to our balmy October and a late crop harvest? Or are the snowstorms of December still fresh in your minds, some of them fuelled by evaporation from the warm Great Lakes to our west, and one by the remnants of tropical storm Olga in mid-December? Do you have relatives in Georgia, which saw one of the worst droughts on record? Or maybe you have family in California, where massive wildfires raged; or in Texas, where repeated flooding occurred during June. As the earth's climate warms, rainstorms in the tropics and in summer are getting more intense, while at the same time the dry regions of the earth in the subtropics are slowly expanding.

Or is your view a global one? Do you remember the terrible fires in Greece, the floods in England, the drought in Australia, the dust storms in China, the tens of millions displaced by floods in Bangladesh, or the two Category 5 hurricanes that struck Mexico's Yucatan Peninsula and Nicaragua? (Category 5 storms have winds greater than 155 mph and cause catastrophic damage.)

For our planet, 2007 was one of the warmest in the past 150 years. As we continue to burn fossil fuels, carbon dioxide is steadily increasing in the atmosphere much more quickly than it can be removed by our forests and oceans. The earth's greenhouse blanket is getting thicker, and consequently the climate on our planet is shifting to a warmer state. This in turn leads to the increasing extremes in the weather we are experiencing.

In my columns this year, as the seasons come and go, I am going to sketch out the interplay of weather and climate and

the warming of the earth. I will discuss how, for better or worse, these changes are affecting our lives here in Vermont. This may seem to be a more "normal" winter for Vermont, but it really isn't. Just as I did in 2007, I walked out to my vegetable garden during the January thaw a few weeks ago. Since the ground was unfrozen, I was able once again to dig under my green cover crop in preparation for an early spring planting. As our climate on average warms, we must adapt where we can in our gardens and on our farms. We need to understand what is happening to the earth, so that we can care more deeply for our planet and the intricate web of life that it sustains, just as we care deeply for our family, friends and neighbors and all of humanity.

Our society is coming to the final decades of our fossil fuel binge. As our president cheerfully says, "We are addicted to oil." Our addiction has been so, so profitable for the oil companies. I hope you have all enjoyed the binge! I remember fondly the first American car that my colleague and I rented on arriving in Miami from the U.K. in 1969, a Plymouth Fury 2. What fun! How it purred as it smoothly accelerated away with its powerful V-8 engine, getting a magnificent 12 miles per gallon. But nearly 40 years older and wiser, I also have fun driving a hybrid that accelerates just as fast, yet goes four times as far on each gallon of gas.

Ah, the relentless march of technology; it gave us the technological marvels of human civilization, along with all the waste and pollution. It just needs a little more guidance. There are many paths ahead. We must choose our way much more carefully. The deeper our understanding and our gratitude and the richer our joy in life, the easier it is for us to sober up and face our future, our children's future and the future of the earth with hope and an open heart.

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#### ON THE NET

Perspectives on the climate of 2007, National Climatic Data Center

www.ncdc.noaa.gov/oa/climate/research/2007/perspectives.html