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The transformation ahead

Alan Betts (http://alanbetts.com/writings)

Seven years have passed since I wrote the first Weekly Planet column — nostalgic readers can download annual collections from alanbetts.com, and read them to their families. Vermont has started the move away from fossil fuels, but for the U.S. and the planet as a whole, the transformation has been far too slow for a soft landing.

The latest research confirms that to have a fair chance of keeping global warming below 3.8 degrees Fahrenheit this century, we will have to leave a third of the oil, half the gas and more than 80 percent of the coal reserves in the ground — where they have been safe for several hundred million years. It is time to stop developing new fossil fuel reserves. This is disturbing news to an economic system that sees fossil fuels as simply wealth to be exploited now, deferring the staggering climate costs to the future.

We know why we are in this predicament. Our economic system idolizes consumerism, corporate interests and deregulation and markets cheap goods by externalizing the costs. The costs include economic injustice for the majority now, and ongoing climate change that will inflict suffering on the Earth's children and grandchildren.

Many politicians pander to historic myths and claim that because they do not understand the complexities of climate science, climate change can be ignored. Rich donors and businesses ply them with silence money. So it is we, the people, who must overcome this inertia and consciously choose to build a new economic system: one based on community solutions, regulation of our waste streams, reduced consumption and an escalating carbon tax to redirect the economy.

Meanwhile, the climate system continues to change in unexpected ways, bringing more extreme weather. This year we also learned how, as the ocean warms, the Antarctic ice sheets have become unstable and face collapse in a few centuries. Sea level rise from this ice melt seems to be doubling every 10 years. But as long as our economic models foolishly discount the future, who will care?

I take stock in January. The vegetable garden, fed by years of compost, was prolific last summer, so we have a winter supply of butternut squash, potatoes and garlic. The Brussels sprouts, kale, parsley and sage lasted into January. These greens I had to pick when temperature started to drop below 15 degrees in December and store on an insulated but unheated porch.

But the biggest delight was also eating local salads into January. Late frosts meant we had our own lettuce and arugula till Thanksgiving, and a mix of volunteer tomatoes, sprouting from the compost, set fruit very late. The last of these tomatoes ripened inside in the first week of January, and we made salads with endive and fresh spinach from the farmers market, grown under cover. Protected by glass, my own spring spinach and lettuce is up and waiting patiently for the warmth of spring.

The early snows melted in late December, and so far our lowest January temperature in Pittsford has been minus 15 degrees: chilly but far warmer than in decades past. When the snow on south-facing slopes

melted, I could carry wood uphill out of the woods and start splitting for next winter. I need the aerobic exercise.

Here in Vermont the governor calls for cleaning up Lake Champlain and accelerating the shift in our energy system away from fossil fuels. These are noble goals that require a shift in consciousness as well as in our economic models. The first goal requires new awareness from everyone living in the Lake Champlain watershed: a conscious realization that trash and waste streams from our thoughtless lives, our farms and urban land, all flow downstream into the lake. The second is even broader, for we must grasp that we humans are just one part of a rich and complex living Earth with interdependencies we have still to fathom.

So this morning, wrapped in a down jacket, I looked at the brilliant reflection of the rising sun on the frozen lake that is the floodplain of the Otter Creek, salvaged a few empty beer cans, and then returned to stoke the woodstove for another day.

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Working with the Earth

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This winter the eastern United States and Canada have had below-normal temperatures and above-normal snow cover. These go together: snow reflects sunlight and can lock in cold temperatures. In the fall the warmer Great Lakes produced many lake-effect storms, and in the past 2 months, there have been many powerful coastal snowstorms developing over the warmer Gulf-Stream. As the oceans warm, evaporation increases, storms get stronger and dump more snow.

It has been chilly here, but almost everywhere else in the northern hemisphere, from the western US to Eurasia, there were record high temperatures in January. California saw the warmest three-months on record for November to January. I heard the grizzly bears in Yellowstone were coming out of hibernation early!

On a global scale the Earth set a new global temperature record in 2014, and this continued into January. But it is stationary weather patterns that again are giving us these extremes. After two cold snowy winters in New England, we have probably forgotten the winter of 2011-2012 when we were locked into the opposite warm pattern with very little snow.

We have wasted the past 20 years. Instead of drafting binding international agreements to reduce carbon pollution, we constructed a binding but amoral global market, based on minimizing costs and maximizing profit. It was designed to make cheaper goods for us, but it has dumped staggering pollution into the atmosphere in Asia, where the primary energy source was burning coal.

We know technically what to do to slow the march of climate change: use energy more efficiently and shift to renewable sources. The latest dimmable LED lights still give me a thrill with their clear light and low energy use. Thanks to Efficiency Vermont they are cheap in the hardware store. Technically we know what to do, but ethically and morally we are lost souls.

The latest research confirms that to have a fair chance of keeping the average global warming below about 4 degrees Fahrenheit this century, we will have to leave a third of the oil, half the gas and more than

80 percent of the coal reserves in the ground. So it's clearly time to stop developing new fossil fuel reserves. This is disturbing news to an economic system that sees fossil fuels as simply wealth to be exploited now, deferring the staggering climate costs into the future. This is why we need a pollution tax on burning fossil carbon.

Earlier this year, Pope Francis quoted an old farmer as saying: "God always forgives, humans rarely forgive, but nature never forgives". At first I thought this was a little harsh, so I checked the source.

The farmer was referring to the exploitation of the land by monoculture until the soil has lost its vitality. Fair enough: if we don't stop burning fossil carbon, than nature, as well as human conflict, will crush our economic system with overwhelming costs. The Earth simply responds to our thoughtless exploitation with melting polar ice, rising seas, intensifying storms and extreme weather.

But what happens when we change direction and start to work with the Earth; as when a farmer diversifies into organic agriculture and the soil is rejuvenated. The Earth heals, and we are healed also; so in this sense we may be forgiven. But to change direction we must repent of our old ways.

This is the great moral challenge we face this century: understanding and reconnecting to the Earth. We tried to suppress the wisdom of the indigenous peoples who had a spiritual connection to the land. Little did we realize that a century later, this wisdom would be central to our survival as a species, and a profound source of hope.