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Time to Face the Future

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

In 2018 it became clear that the Earth has passed a threshold where many extreme weather events are now clearly attributable to climate change. In the US, hurricanes Harvey and Florence broke all records for rainfall amount, as they strengthened over warmer tropical oceans, and then stalled on the coast for days. In Kerala, India this year the monsoon floods were the worst in a century, displacing a million people. Warming seas give more evaporation that are fueling stronger rain events.

A distinct but coupled climate change impact comes from the fact that the Arctic is warming twice as fast as the rest of the globe, and this is producing larger amplitude waves in the mid-latitude jetstream that move slowly. Blocking patterns in the weather are becoming more frequent, and these slow down the movement of storms. This contributed to the disastrous flooding from Harvey and Florence. More generally, blocking patterns can create extremes in temperature, or more rain in one region and longer droughts elsewhere. In 2018, the eastern US had record temperatures for the six months from May to October, with record rainfall in Pennsylvania and the Virginias. In the west, California remained in an extended drought, and the last two years have set new records for both fire severity and damage. One million California buildings now face wildfire risk.

Millions of coastal homes face flooding from storm surges and accelerating sea-level rise, as the massive ice-sheets on Greenland and western Antarctica move slowly towards instability. Global emissions of CO_2 rose in 2018; while in sharp contrast the latest IPCC Special Report 15 says we must reduce emissions rapidly in the next decade to slow climate change. The fossil fuel industry paid no attention, and hampered progress at the recent climate conference in Poland with the assistance of the US.

The fourth National Climate Assessment (NCA-4), compiled by thirteen federal agencies and released over Thanksgiving, mapped out adaption costs and detailed strategies for the US in the coming decades. Our narcissistic leader, unwilling to read even the executive summary, said in response: "I am so smart that I don't need scientists to tell me what is happening to the climate". This prompted more discussion on how individuals can be so stupid that they are unaware of it.

Take a deep breath, and ask if we can make this Assessment a climate tipping point of a different nature? Scrap those New Year resolutions, and read the NCA-4 (<u>https://www.globalchange.gov/nca4</u>). Yes it is long and detailed, so plan community potlucks to hold discussions and to keep warm. Assign each other one chapter, and plan to stir up creative trouble this winter. What does your community need to do, and how can you get it done before the apocalypse?

For ideas and backup, join all those forward-looking groups that are thinking of ways to address the exploitation of the Earth and its people before it is too late. Groups like 350.org; Rights and Democracy (radvt.org), Indivisible (indivisible.org), the Transition Town movement (transitionnetwork.org), and many more.

Long-term, we need representatives on local select boards and regional planning commissions to steer constructive change. Short-term, we need town meeting resolutions to tell those newly-elected politicians in Montpelier that it is far too late for more promises to act someday. The Earth's climate is not waiting for us.

It is time for speedy action to build a resilient Vermont, where as much as possible of our food supply, water resources, renewable energy supplies and businesses are under responsible local control. It will still be painful to watch if the central government continues to crumble, and threaten those who know its fantasies are foolish and cruel. Nonetheless, we can choose a responsible path and create a shared livable future for our communities and for Vermont.