

The slow but steady progression toward environmental sustainability

December 28 2017, by Steve Cohen

As 2017 ends and 2018 begins, many of us reflect on the year that has past and think about the year to come. In the United States we have had a year filled with disappointment but sparked by hope. We have a president without a shred of understanding of the nature of the global sustainability crisis who operates as if he is in a time warp stuck in 1975. He is in the process of deconstructing the U.S. EPA, shredding environmental regulations and enforcement, opening up natural treasures to exploitation, discouraging immigration and global trade, and debasing the dignity of his office tweet by tweet. Last week the [New York Times](#)' Lisa Friedman, Marina Affo and Derek Kravitz reported that:

"More than 700 people have left the Environmental Protection Agency since President Trump took office...Of the employees who have quit, retired or taken a buyout package since the beginning of the year, more than 200 are scientists...Nine department directors have departed the agency as well as dozens of attorneys and program managers. Most of the employees who have left are not being replaced."

The headline on their piece was: "E.P.A. Officials, Disheartened by Agency's Direction, Are Leaving in Doves." The news from EPA is no different than the news from the Department of the Interior. Yesterday, Ted Mann of the Wall Street Journal reported that:

"Regulators in the Trump administration are proposing to roll back safety measures put in place after the 2010 Deepwater Horizon oil spill, a revision that would reduce the role of government in offshore oil

production and return more responsibility to private companies."

Why worry about fatalities, injuries, and billions of dollars of environmental damage, when there's money to be made? But while the president and his pals are doing their best to loot and pillage the natural world, a counterforce has been set in motion that may be more powerful than the one that narrowly elected Donald Trump as president. Some of this is America's almost natural reaction to government power.

Presidents nearly always lose support in mid-term elections. But something else is happening throughout America. The grass roots support for a clean and safe environment continues to grow and find expression. People may not like regulations that tell them what to do, but they don't want their children exposed to lead in their drinking water, or poisons in the air they breathe. The same conservative impulse that opposes regulation, generates the anti-development Not in My Backyard Syndrome (NIMBY).

While the U.S. federal government is trying to resist the growth of [renewable energy](#), our state and local governments, corporations and homeowners are buying in anyway because energy efficiency and renewable energy save money and make our businesses more competitive. Even if our federal government is trying to wish away the facts of climate change, the French are hiring our climate scientists, the Chinese are moving to dominate the solar and wind business, and nearly everyone is working to improve battery technology. As renewable energy and battery technology continue to improve, the fossil fuel business will slowly but surely fade into a no longer air-polluted sunset. By pulling America out of the Paris Climate Treaty, Donald Trump had the effect of mobilizing the rest of the world behind the treaty. American states, cities, companies and institutions, led by Michael Bloomberg, demonstrated that America could meet our greenhouse gas reduction targets, without the cooperation of the White House.

It is sad to see our own national government as a reactionary, negative force opposing environmental protection. We've seen this before, typically at start of Republican Administrations. The first two years of the Reagan Presidency, and the start of George W. Bush's reign, saw efforts to reduce the vigor of environmental regulation and enforcement. But each time, the broad and deep support for a clean environment pushed back and successfully resisted attempts to dismantle these protections. As a result, America's environment today is far cleaner than it was in 1980. We have successfully applied technology to reduce the impact of power plants and autos on our air quality and the discharge of effluents into our waterways. We are recycling more, and slowly learning how to pay attention to our impact on the [natural world](#) we live in.

But it is a long slow process. Our biodiversity and oceans are threatened, and in the developing world the intense need for economic growth and the absence of effective environmental rules causes massive levels of pollution. No one should underestimate the complexity and difficulty of the challenge ahead. We don't really understand enough about the damage we are causing, and so additional basic [environmental science](#) must be funded and carried out to advance our knowledge. The only way we can mitigate the damage we cause is to understand it. The U.S. federal government needs to dramatically expand its funding of environmental science, and of the environmental engineering needed to reduce the damage we learn about through our science. Our best hope of continued progress is to learn more about the planet and to get more sophisticated and clever in drawing the resources we need from the planet to ensure our welfare.

Over the past several decades I have seen countless examples of human ingenuity applied to the reduction of the complex causes of [environmental damage](#). From catalytic converters in cars, to scrubbers in the smoke stacks of power plants; from Tesla's battery to the application of nanotechnology in solar cells. Planting a million trees in New York

City and reforesting tropical woodlands. Taking old industrial land and turning it into vibrant public spaces: Building the High Line Park in New York and the Canal Park in Washington D.C. I've seen improved water management, crop management and closed system manufacturing that recycles most of what it used to dump into our air, land and water.

Perhaps most important and ultimately transformative has been the growth of solar and wind power. Fossil fuel extraction and burning is a clear and present danger to the planet's ecology and climate. Energy is central to every aspect of our economic life. The transition to renewable energy is critical to our future and the future of our children and grandchildren. Despite the efforts of President Trump, and his EPA and Department of Energy chiefs, renewable energy continues to advance in this country and around the world. It's not a question of if they will drive fossil fuels from the market, but when. The transition to renewables continued to gain momentum in 2017 and these gains will continue into 2018.

The U.S. federal government's actions on energy and environment are so out of sync with reality that they have had the paradoxical effect of reinforcing the need for continued action. It is difficult to be apathetic or indifferent to the noises made by this president. The result is mobilization. We see it with the battle against sexual assault and harassment. We saw it on race relations in the wake of Trump's comments following the Charlottesville protests. We've seen it with immigration in protests against the Muslim ban and the effort to deport the "dreamers". And we have seen mobilization in the aftermath of this president's attacks on public lands, climate science, greenhouse gas reductions and [environmental regulations](#).

What gives me the greatest hope when I assess environmental sustainability is the growing awareness of the importance of these issues by the American public. Young people, more than old people,

understand the planet's environmental challenges. Poll after poll demonstrates this as do their actions when they enter the world of work and challenge their employers to build the organizational capacity to ensure sustainability while performing the organization's core mission. We see this all over the world. It may be hard to address these problems, but people know they exist. They know that environmental degradation can make them sick and harm their children. This awareness leads to cultural and social change. Cultural and social change leads to new behaviors in the economic marketplace, and ultimately to political change.

If I thought that the only way to protect the environment was to reduce economic growth, I would be worried about the planet. But I strongly believe that we can build a high throughput, renewable resource based economy that can bring material plenty to the world's people without destroying the planet. We just need to learn more and apply what we learn. Despite the negatives that are obvious and real, I believe the tide of history is behind the drive for environmental sustainability. Progress is slow, but it is steady.

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