

WHY GLOBAL WARMING MITIGATION WILL FAIL

Unless we create a new, smaller, low-energy, humane society

Greenhouse gas emissions are still increasing: Yearly increases were 2.7 percent in the 1990s, 3.5 percent between 2000 and 2007, and 5.6 percent between 2009 and 2010. But nothing effective is being done to reduce them. There are multiple reasons for that:

Apathy/hypocrisy. Americans, by about 3-1, say they are concerned about warming, but citizens are not vocal in support of mitigation: No one is marching in the streets or burying politicians in letters of protest over global warming. Opinions expressed in polling are easy to offer, but opinions do not mitigate emissions. Eugene, where I live, has a “Climate and Energy Action Plan” calling for deep reductions in emissions in the city by 2020, but the city does not intend to implement it among the citizenry. The “Plan” is just green-washing for City Council politicians — apathy in action!

Delayed consequences. Warming is a current phenomenon, but most of the damage is in the future, like a time-delayed bomb — we emit now and suffer the consequences later. But because it is a future event, neither citizens nor politicians feel any urgency. Politicians say they want action, but “not during my term in office.” But mitigation must start now — we cannot wait for dramatic events, as by then it is too late. Remember: On any human time scale, warming is irreversible.

Amenities. We ignore our pollution because we love our amenities — our two cars, boats, motorcycles, leaf blowers, heated/cooled houses, stylish clothing, ubiquitous entertainment/communication, tourist travel, travel by air (the greatest travel emissions), driving the kid to school, and so on — wretched excess! Subtract fossil fuels (which are about 87 percent of our energy supply) from those comforts, and virtually all of them disappear or are much more difficult and expensive to enjoy: no wonder we cling to the myth of infinite resources! Comfort and pleasure seduce reason; reason submits.

Growth! The sanctity of growth in the economy and in population is the real American religion. What all cities/communities want is more economic and population growth. In the 19th and 20th centuries, economic and population growth were enabled by oil, coal and (later) gas, which all became critically important to our economy. But growth is now impossible without cheap and abundant fossil fuels, and they are finite and becoming prohibitively expensive — causing recessions. We still believe in unlimited growth and resource abundance — geology and physics be damned!

Energy cornucopia! First, contrary to news reports, the U.S. will never become energy independent in fossil fuels, nor will we out-produce Saudi Arabia. Those absurd ideas depend on two claims (per the International Energy Agency’s *World Energy Outlook 2012*).

First claim: We will have greatly increased production from fracked oil and gas wells. But depletion rates for hydraulically fractured (fracked) wells in shale are high (oil: 40 percent/year on year; gas: 75 percent year on year). Drilling is financed by Wall Street, and drillers are not disclosing depletion rates, as that would make financing difficult.

Second claim: new Corporate Average Fuel Economy (CAFE) standards require much higher mileage — increased efficiency — and we’ll need less gas. But, note that Jevons Paradox indicates that if increased efficiencies keep resource costs down, the result is more resource consumed, contrary to our goal.

The CAFE standards would simply disappear with the election of a Republican president.

The “booms” in oil and gas are mostly just Wall Street bubbles like the real estate and internet bubbles of recent years. Conventional (cheap) fossil fuels are declining

resources, and fracked, deep water, oil sands and arctic sources are prohibitively expensive. But no matter — the press is still full of empty chatter about the U.S. out-producing Saudi Arabia and being energy independent.

Individualism. Individualism adherents dislike cooperative processes, preferring go-it-alone methods. A carbon fee (as an example) may be accepted by some such folks (because it is a market-based approach — you only pay it if you use carbon) but to others it may seem a mandate. With a carbon fee, individualists who didn’t pay would not be able to use carbon-based fuels, and they seem likely to resist anything that restricts driving — an essential American “right.” Mitigation itself is a globally cooperative effort, and such cooperative projects might feel to individualists like unacceptable liberalism/collectivism, and hence resisted. Many in the U.S. demonize any multi-nation cooperation.



TOM GIESEN AND HIS DAUGHTER ERIKA

Anti-scientism. Many in America have not moved beyond medieval science. Most Americans accept using the fruits of modern science (cars, airplanes, modern medicine, imaging tools such as MRI, exotic drugs, the internet, remote sensing, etc.), but that does not imply an understanding or acceptance of scientific discipline, processes or of scientists. Rationality does not often apply in scientific issues with political overtones, or with personal preferences, and hence global warming, the end of cheap oil, and other issues are falsely labeled as scientific frauds by opponents of science.

American exceptionalism. We imagine we are different from others, an exception to many of the rules that govern other people and other nations. Some of that exceptionalism is a repudiation of European social/political customs, from which some colonial settlers fled. Some of it is home-grown, as exemplified by the American Dream myth. Some of it stems from the hugeness of our economy — and of our military. But in all cases what many Americans accept is that we are not subject to the same rules as other nations, and that is reflected in our reluctance to participate equally (or at all) in international treaties and

other agreements — such as those related to land mines, cluster bombs and (even more destructive) CO2 emissions.

Globalism. It is nearly universally believed that the solution to the problem of warming lies in global treaties involving all nations and dealing with emissions reductions and related equity/financial issues. Warming cannot be mitigated nation-by-nation, as cheating would be rampant, with efforts to gain advantage at other nations’ expense. But international negotiations to agree to a treaty to reduce emissions have so far proved useless, as the process is long on rhetoric and intention, and bereft of action. For example, if we wish to avoid a climate warmed by 4 degrees C, many if not most scientists feel that emissions reductions must begin now. The new agreement in Doha is to have a new treaty by 2015 to start reducing emissions in 2020 — 8 years from now. The process seems a farce, completely disconnected from the science that ought to inform it, and it fails to reflect the incredible urgency of the issue. It’s now 25 years since James Hansen warned Congress, and we have done nothing. Nothing.

Monitoring and assuring compliance. Samuel Hays, the environmental historian, famously wrote that passing a law is just half of the process — implementing and enforcing the law is the other half. That will be true for any emissions treaty ever adopted. How do you closely monitor emissions of a gas which quickly diffuses globally in the atmosphere? How do you closely monitor all production and use of fossil fuels? How do you monitor and control land use change (deforestation) before the deed is done? Etc.

Greed. Fossil fuel producers must be delighted by the current state of the market. The production of fossil fuels (coal, oil and natural gas) is at historic high levels, and much of the resource now being sold was developed at a time when developing wells and mines was much cheaper than today. But the price of crude oil is three times higher today than it was just 13 years ago, and the price of coal is increasing. That leaves lots of “room” for incredible profits. Demand is outstripping supply: prices, over time, will continue to rise. No wonder the fossil fuel industry lavishly funds global warming deniers and skeptics — the “lavish” funding is chump change in view of current profits. At the same moment as they fund deniers and skeptics, oil companies now claim to support global warming science (see their websites), but minimize the risks of high levels of cumulative emissions. Hypocrisy reigns! Greed permeates political life as well: Worldwide, governments’ subsidies to fossil fuel producers now total \$100 billion a year, and subsidies to consumers are \$675 billion. The subsidies are like crack cocaine — the addiction is extremely difficult to treat.

Carbon fees. Carbon fees on fossil fuel extraction, rebated to taxpayers, are the only effective means to reduce fossil fuel use, as they will make renewables cost effective. Will Iraq, Iran, Saudi Arabia and other oil-rich countries ever agree to a carbon fee, which would, if effective, price petroleum out of the energy market?

Tribalism. Recent research shows that, almost regardless of education, scientific literacy and numeracy, folks adopt beliefs like those they think of as their peers. The tribe rules.

Inertia. We have conceptual, emotional, financial and infrastructure investments in fossil fuel technology that we don’t want to give up.

We must wise up and rise up, take to the streets in protest, and create a new, smaller, low-energy, humane society.

Tom Giesen of Eugene is an adjunct professor in the UO Public Planning, Policy and Management Department and has master’s degrees in both forest ecology (biogeochemistry) and creative writing. He has also been active in Citizens for Public Resources, the Native Forest Council, the Oregon Natural Resources Council, Iszaak Walton League and more.