

Tomgram: Naomi Oreskes, Why Science Failed to Stop Climate Change

Posted by [Naomi Oreskes](#) at 4:25pm, November 10, 2019.

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[**Note for TomDispatch Readers:** *Today's author, Naomi Oreskes, who's done [yeoman's work](#) on climate-change issues over the years, has a new book, [Why Trust Science?](#) Here are two recommendations for it from figures I admire: Naomi Klein says, "How do we get to the truth? How do we safeguard scientific knowledge (and ourselves) from those whose interests are threatened by it? With her trailblazing work on climate denial and much else, Naomi Oreskes offers essential perspective on these questions. She tackles them head-on in this clear, utterly compelling book." Elizabeth Kolbert (author of *The Sixth Extinction*) agrees, saying the book "should be read by progressives, conservatives, and everyone in between. It's an important, timely, and utterly compelling book." Tom]*

I saw [the piece](#) in the *Guardian* in July 2018 and must admit I was stunned by it. It wasn't that, on the issue of climate change, I hadn't already read plenty of bad news about what was to come for humanity. Somehow, though, this story got to me -- maybe because, once upon a time in another universe, I was a China-scholar-to-be. The headline read: "Unsurvivable heatwaves could strike heart of China by end of century." As a result, the *Guardian* reported, parts of the heavily populated North China plain -- populated by 400 million people today -- could become "uninhabitable" by 2100 or even earlier.

I mean, tell me that isn't shocking. Or to jump to the present, what about the recent study that recalibrated

what sea-level rise would mean for coastal communities and found, [according to](#) the *New York Times*, that "some 150 million people are now living on land that will be below the high-tide line by midcentury." That's just 30 years from now! Look at the accompanying maps in that piece and, as you'll see, southern Vietnam "could all but disappear." Talk about "uninhabitable." The same obviously applies, for example, to parts of Florida (where the president is now [moving](#) his residence to escape taxes). That state, after all, [has five](#) of the 20 urban areas in this country expected to suffer the most from rising sea levels: Miami, Miami Beach, Panama City, St. Petersburg, and Tampa.

Back in 2013, I coined the term "terrorists" to describe the men who run what may be the most profitable corporations on the planet, giant energy companies like ExxonMobil, Chevron, and Shell, and to capture what they were doing to the rest of us. Today, Naomi Oreskes, author of the new book [Why Trust Science?](#), offers a genuinely shocking account of how those companies invested significant sums from the money they made broiling this planet and much effort into the promotion of misinformation and disinformation about the harm fossil fuels are doing -- and how effective they've been at it. Just look at the Republican Party, once [considered](#) the party of the environment and now a party of [pyromaniacs](#). It's truly a tale from hell, one that threatens the wellbeing of all our children and grandchildren. *Tom*

The Greatest Scam in History

How the Energy Companies Took Us All

By [Naomi Oreskes](#)

It's a tale for all time. What might be the greatest scam in history or, at least, the one that threatens to take history down with it. Think of it as the climate-change scam that beat science, big time.

Scientists have been seriously investigating the subject of human-made climate change since the late 1950s and political leaders have been discussing it for nearly as long. In 1961, Alvin

Weinberg, the director of the Oak Ridge National Laboratory, called carbon dioxide one of the “big problems” of the world “on whose solution the entire future of the human race depends.” Fast-forward nearly 30 years and, in 1992, President George H.W. Bush signed the U.N. Framework Convention on Climate Change (UNFCCC), [promising](#) “concrete action to protect the planet.”

Today, with Puerto Rico still recovering from Hurricane Maria and fires burning across California, we know that did not happen. Despite hundreds of scientific reports and assessments, tens of thousands of peer-reviewed scientific papers, and countless conferences on the issue, man-made climate change is now a living crisis on this planet. Universities, foundations, churches, and individuals have indeed divested from fossil fuel companies and, [led by](#) a 16-year-old Swedish girl, citizens across the globe have [taken to the streets](#) to express their outrage. Children have [refused](#) to go to school on Fridays to protest the potential loss of their future. And if you need a measure of how long some of us have been at this, in December, the Conference of Parties to the UNFCCC will meet for the *25th time*.

Scientists working on the issue have often told me that, once upon a time, they assumed, if they did their jobs, politicians would act upon the information. That, of course, hasn't happened. Anything but, across much of the planet. Worse yet, science failed to have the necessary impact in significant part because of disinformation promoted by the major fossil-fuel companies, which have succeeded in diverting attention from climate change and successfully blocking meaningful action.

Making Climate Change Go Away

Much [focus](#) has been put on ExxonMobil's history of disseminating disinformation, partly because of the documented discrepancies between what that company said in public about climate change and what its officials said (and funded) in private. Recently, a [trial](#) began in New

York City accusing the company of misleading its investors, while [Massachusetts](#) is [prosecuting](#) ExxonMobil for misleading consumers as well.

If only it had just been that one company, but for more than 30 years, the fossil-fuel industry and its allies have denied the truth about anthropogenic global warming. They have systematically misled the American people and so purposely contributed to endless delays in dealing with the issue by, among other things, discounting and disparaging climate science, mispresenting scientific findings, and attempting to discredit climate scientists. These activities are [documented](#) in great detail in *How Americans Were Deliberately Misled about Climate Change*, a report I recently co-authored, as well as in my 2010 [book](#) and 2014 [film](#), *Merchants of Doubt*.

A key aspect of the fossil-fuel industry's disinformation campaign was the mobilization of “third-party allies”: organizations and groups with which it would collaborate and that, in some cases, it would be responsible for creating.

In the 1990s, these allied outfits included the Global Climate Coalition, the Cooler Heads Coalition, Informed Citizens for the Environment, and the Greening Earth Society. Like ExxonMobil, such groups endlessly promoted a public message of denial and doubt: that we weren't really sure if climate change was happening; that the science wasn't settled; that humanity could, in any case, readily adapt at a later date to any changes that did occur; and that addressing climate change directly would wreck the American economy. Two of these groups -- Informed Citizens for the Environment and the Greening Earth Society -- were, in fact, [AstroTurf](#) organizations, created and funded by a coal industry trade association but dressed up to look like grass-roots citizens' action [organizations](#).

Similar messaging was pursued by a network of think tanks promoting free market solutions to social problems, many with ties to the fossil-fuel

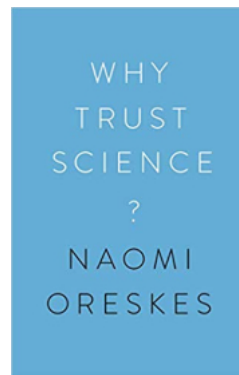
industry. These included the George C. Marshall Institute, the Cato Institute, the Competitive Enterprise Institute, the American Enterprise Institute, and the Heartland Institute. Often their politically motivated contrarian claims were presented in formats that make them look like the scientific reports whose findings they were contradicting.

In 2009, for instance, the Cato Institute issued a report that precisely mimicked the format, layout, and structure of the government's U.S. National Climate Assessment. Of course, it made claims thoroughly at odds with the [actual](#) report's science. The industry also promoted disinformation through its trade associations, including the American Legislative Exchange Council, the American Petroleum Institute, the U.S. Chamber of Commerce, the National Black Chamber of Commerce, and the National Association of Manufacturers.

Both think tanks and trade organizations have been involved in personal attacks on the reputations of scientists. One of the earliest documented was on climate scientist Benjamin Santer at the Lawrence Livermore National Laboratory who showed that the observed increase in global temperatures could not be attributed to increased solar radiation. He served as the lead author of the Second Assessment Report of the U.N.'s prestigious Intergovernmental Panel on Climate Change, or IPCC, responsible for the 1995 conclusion that "the balance of evidence suggests a discernible human impact on the climate system." [Santer](#) became the target of a vicious, arguably defamatory attack by [physicists](#) from the George C. Marshall Institute and the Global Climate Coalition, who accused him of fraud. Other climate scientists, including Michael Mann, Jonathan Overpeck, Malcolm Hughes, Ray Bradley, Katharine Hayhoe, Kevin Trenberth, and, I should note, myself, have been [subject](#) to harassment, investigation, hacked emails, and politically motivated freedom-of-information attacks.

How to Play Climate Change for a Fool

When it came to industry disinformation, the role of third-party allies was on full display at the House Committee on Oversight hearings on climate change in late October. As their sole witness, the Republicans on that committee invited Mandy Gunasekera, the founder and president of Energy45, a group whose purpose, in its [own words](#), is to "support the Trump energy agenda."



[Buy The Book](#)

Energy45 is part of a group known, bluntly enough, as the CO₂ Coalition and is a perfect example of what I've long thought of as zombie denialism in which older players spouting industry arguments suddenly reappear in new forms. In this case, in the 1990s and early 2000s, the George C. Marshall Institute was a [leader](#) in climate-change [disinformation](#). From 1974-1999, its director, William O'Keefe, had also been the executive vice president and later CEO of the American Petroleum Institute. The Marshall Institute itself closed in 2015, only to re-emerge a few years later as the CO₂ Coalition.

The comments of Republican committee members offer a sense of just how deeply the climate-change disinformation campaign is now lodged in the heart of the Trump administration and congressional Republicans as 2019 draws to an end and the planet visibly heats. Consider just six of their "facts":

1) *The misleading claim that climate change will be "mild and manageable."* There is no scientific evidence to support this. On the contrary, literally hundreds of scientific reports over the past few decades, including those U.S. National Climate Assessments, have affirmed that any warming above 2 degrees Centigrade will [lead](#) to grave and perhaps catastrophic effects on "health, livelihoods, food security, water supply, human

security, and economic growth.” The U.N.’s [IPCC](#) has recently noted that avoiding the [worst](#) impacts of global warming will “require rapid and far-reaching transitions in energy... infrastructure... and industrial systems.”

Recent events surrounding Hurricanes Sandy, Michael, Harvey, Maria, and Dorian, as well as the [devastating wildfire](#) at the ironically named town of Paradise, California, in 2018 and the fires across [much of that state](#) this fall, have shown that the impacts of climate change are already part of our lives and becoming [unmanageable](#). Or if you want another sign of where this country is at this moment, consider a new [report](#) from the Army War College indicating that “the Department of Defense (DoD) is precariously unprepared for the national security implications of climate change-induced global security challenges.” And if the Pentagon isn’t prepared to manage climate change, it’s hard to imagine any part of the U.S. government that might be.

2) *The misleading claim that global prosperity is actually being driven by fossil fuels.* No one denies that fossil fuels drove the Industrial Revolution and, in doing so, contributed substantively to rising living standards for hundreds of millions of people in Europe, North America, and parts of Asia. But the claim that fossil fuels are the essence of global prosperity today is, at best, a half-truth because what is at stake here isn’t the past but the future. Disruptive climate change fueled by greenhouse gas emissions from the use of oil, coal, and natural gas now threatens both the prosperity that parts of this planet have already achieved and future economic growth of just about any sort. Nicholas Stern, the former chief economist of the World Bank and one of the foremost experts on the economics of climate change, has [put](#) our situation succinctly this way: “High carbon growth self-destructs.”

3) *A misleading claim that fossil fuels represent “cheap energy.”* Fossil fuels are not cheap. When their external costs are included -- that is, not just the price of extracting, distributing, and profiting

from them, but what it will cost in all our lives once you add in the fires, extreme storms, flooding, health effects, and everything else that their carbon emissions into the atmosphere will bring about -- they couldn’t be more expensive. The International Monetary Fund [estimates](#) that the cost to consumers above and beyond what we pay at the pump or in our electricity bills already comes to more than \$5 trillion dollars annually. That’s *trillion*, not billion. Put another way, we are all paying a massive, largely unnoticed subsidy to the oil, gas, and coal industry to destroy our civilization. Among other things, those [subsidies](#) already “damage the environment, caus[e]... premature deaths through local air pollution, [and] exacerbat[e] congestion and other adverse side effects of vehicle use.”

4) *A misleading claim about poverty and fossil fuels.* That fossil fuels are the solution to the energy needs of the world’s poor is a [tale](#) being heavily promoted by ExxonMobil, among others. The idea that ExxonMobil is suddenly concerned about the plight of the global poor is, of course, laughable or its executives wouldn’t be planning [\(as they are\)](#) for significant increases in fossil-fuel production between now and 2030, while downplaying the threat of climate change. As [Pope Francis](#), global justice leader [Mary Robinson](#), and former U.N. Secretary General Ban Ki-Moon -- as well as countless scientists and advocates of poverty reduction and global justice -- have repeatedly emphasized, climate change will, above all, hurt the poor. It is they who will first be uprooted from their homes (and homelands); it is they who will be migrating into an increasingly hostile and walled-in world; it is they who will truly feel the heat, literal and figurative, of it all. A fossil-fuel company that cared about the poor would obviously not be committed, above all else, to pursuing a business model based on oil and gas exploration and development. The cynicism of this argument is truly astonishing.

Moreover, while it’s true that the poor need affordable [energy](#), it is not true that they need

fossil fuels. More than a billion people worldwide lack access (or, at least, reliable access) to electricity, but many of them also lack access to an electricity grid, which means fossil fuels are of little use to them. For such communities, solar and wind power are the only reasonable ways to go, the only ones that could rapidly and affordably be put in place and made available.

5) *Misleading assertions about the costs of renewable energy.* The cheap fossil fuel narrative is regularly coupled with misleading assertions about the allegedly high costs of renewable energy. According to Bloomberg News, however, in two-thirds of the world, [solar](#) is already the cheapest form of newly installed electricity generation, cheaper than nuclear, natural gas, or coal. Improvements in energy storage are needed to maximize the penetration of renewables, particularly in developed countries, but such improvements are happening quickly. Between 2010 and 2017, the price of battery storage decreased a startling 79% and most experts believe that, in the near future, many of the storage problems can and will be solved.

6) *The false claim that, under President Trump, the U.S. has actually cut greenhouse gas emissions.* Republicans have [claimed](#) not only that such emissions have fallen but that the United States under President Trump has done more to reduce emissions than any other country on the planet. One environmental reporter, who has described herself as “accustomed to hearing a lot of misinformation” about climate change, [characterized](#) this statement as “brazenly false.” In fact, U.S. CO2 [emissions](#) spiked in [2018](#), increasing by 3.1% over 2017. [Methane](#) emissions are also on the rise and President Trump’s proposal to [rollback](#) methane standards will ensure that unhappy trend continues.

Science Isn’t Enough

And by the way, when it comes to the oil companies, that’s just to start down a far longer

list of misinformation and false claims they’ve been peddling for years. In our 2010 book, [Merchants of Doubt](#), Erik Conway and I showed that the strategies and tactics used by Big Energy to deny the harm of fossil-fuel use were, in many cases, remarkably similar to those long used by the tobacco industry to deny the harm of tobacco use -- and this was no coincidence. Many of the same PR firms, advertising agencies, and institutions were involved in both cases.

The tobacco industry was finally [prosecuted](#) by the Department of Justice, in part because of the ways in which the individual companies coordinated with each other and with third-party allies to present false information to consumers. Through congressional hearings and legal discovery, the industry was pegged with a wide range of activities it funded to mislead the American people. Something similar has occurred with Big Energy and the harm fossil fuels are doing to our lives, our civilization, our planet.

Still, a crucial question about the fossil-fuel industry remains to be fully explored: Which of its companies have funded the activities of the trade organizations and other third-party allies who deny the facts about climate change? In some cases, we already know the answers. In 2006, for instance, the [Royal Society](#) of the United Kingdom [documented](#) ExxonMobil’s funding of 39 organizations that promoted “inaccurate and misleading” views of climate science. The Society was able to identify \$2.9 million spent to that end by that company in the year 2005 alone. That, of course, was just one year and clearly anything but the whole story.

Nearly all of these third-party allies are incorporated as 501(c)(3) institutions, which [means](#) they must be non-profit and nonpartisan. Often they claim to be involved in education (though mis-education would be the more accurate term). But they are clearly also involved in supporting an industry -- Big Energy -- that couldn’t be more *for-profit* and they have done many things to support what could only be called

a partisan political agenda as well. After all, by its own admission, Energy45, to take just one example, exists to support the “Trump Energy Agenda.”

I’m an educator, not a lawyer, but as one I can say with confidence that the activities of these organizations are the opposite of educational. Typically, the Heartland Institute, for instance, has explicitly targeted schoolteachers with disinformation. In 2017, the institute sent a booklet to more than 200,000 of them, repeating the oft-cited contrarian claims that climate science is still a highly unsettled subject and that, even if climate change were occurring, it “would probably not be harmful.” Of this booklet, the director of the [National Center](#) for Science Education said, “It’s not science, but it’s dressed up to look like science. It’s clearly intended to confuse teachers.” The National Science Teaching [Association](#) has called it “propaganda” and advised teachers to place their copies in the recycling bin.

Yet, as much as we know about the activities of Heartland and other third-party allies of the fossil-fuel industry, because of loopholes in our laws we still lack basic information about who has funded and sustained them. Much of the funding at the moment still qualifies as “dark money.” Isn’t it time for citizens to demand that Congress investigate this network, as it and the Department of Justice once investigated the tobacco industry and its networks?

ExxonMobil loves to accuse me of being “an activist.” I am, in fact, a teacher and a scholar. Most of the time, I’d rather be home working on my next book, but that increasingly seems like less of an option when Big Energy’s climate-change scam is ongoing and our civilization is, quite literally, at stake. When citizens are inactive, democracy fails -- and this time, if democracy fails, as burning California shows, so much else could fail as well. Science isn’t enough. The rest of us are needed. And we are needed now.

Naomi Oreskes is professor of the history of science and affiliated professor of earth and planetary sciences at Harvard University. She is coauthor, with Erik Conway, of [Merchants of Doubt](#). Her latest book is [Why Trust Science?](#)

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