**The Acceleration of Global Warming as Crime Against Humanity:**

**A Moral Case for Fossil Fuel Divestment**

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There is no scientific controversy over the human cause of global warming, despite its dogged denial among some world leaders—most notably the President of the United States and a majority of Republican legislators. The fact that human caused greenhouse gas emissions are driving global warming is established beyond any reasonable doubt.[[1]](#endnote-1) Indeed, scientists can confidently confirm that all of the warming since the mid-20th century is the result of human activity.[[2]](#endnote-2) There is a large and growing literature on why people deny established science, in particular climate change, and how best to engage with citizens guided by motivated reasoning rather than informed judgments.[[3]](#endnote-3) In this essay, however, I will focus on those motivated by short term financial and political profit while demonstrating disregard for public health, human safety, and the long-term stability of modern civilization.

As I have argued elsewhere, the rejection of established scientific findings by non-experts is a species of science denialism labeled appropriately as *pseudoskepticsm.[[4]](#endnote-4)* The pseudoskeptical denial of anthropogenic global warming is morally and epistemically irresponsible in most contexts.[[5]](#endnote-5) The obstinate dismissal of climate science by politicians implementing policies known to accelerate global warming, but beneficial to their corporate donors, bears more serious moral implications. Thinkers from a variety of disciplinary backgrounds are increasingly building the case that such actions are best conceptualized as crimes against humanity.[[6]](#endnote-6) The charge is plausible given the reality that human caused global warming poses an existential threat to humankind. In this sense, it is fair to compare anthropogenic global warming to a curable illness that will become terminal if we fail to treat it in timely fashion.

Given the grave moral status of crimes against humanity, or even plausible candidates for such crimes, financial divestment from associated activities is ethically obligatory. The thrust of this paper therefore is twofold: (a) to establish that corporate and political policies contributing foreseeably to global warming’s acceleration are indeed best understood as crimes against humanity; and (b) to show that fossil fuel divestment is necessary to avoid collaboration and complicity in such crimes. The claim I make against the political and corporate denial of anthropogenic global warming is serious. It is therefore important to establish at the onset that the continued acceleration of anthropogenic global warming is grave enough to warrant the charge.

**Part I: Climate Change**

Anthropogenic global warming will lead to the death and displacement of millions of human beings currently living on our planet—this fact is without controversy in the scientific community.[[7]](#endnote-7) Widespread devastation to the world’s poorest and most vulnerable populations will result even if we successfully mitigate the most catastrophic impacts of climate change by achieving goals set by signatories of the 2015 Conference of the Parties (COP 21) held in Paris:

*Emphasizing* […] emission pathways consistent with holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels …[[8]](#endnote-8)

Emission objectives set in the Paris accord represent the best case scenario given current warming of 1.2 degrees Celsius (2.2 degrees F) above preindustrial temperatures. These targets are crucial if we are to have the best chance available of avoiding “positive” amplification feedbacks, which could push warming beyond human control. For instance, as wildfires burn they release carbon, leading to increased temperatures, which lead to increased wildfires—while simultaneously depleting the carbon sink of global forestation. As sea ice melts, darker ocean surfaces absorb more heat, thus driving more heating and more melting. As permafrost thaws, previously locked stores of methane and other greenhouse gasses are released into the atmosphere, thus driving more thawing, and in turn more greenhouse gas release.[[9]](#endnote-9)

At our current rate of warming, the world will likely pass 2 degrees Celsius (3.6 degrees F) above preindustrial temperatures by 2050, or sooner, possibly reaching a disastrous 4 degrees Celsius (7.2 degrees F) above preindustrial temperatures by the end of this century.[[10]](#endnote-10) Global warming is accelerating and the climate is increasingly unstable. The last three decades have registered above the preindustrial average temperature;[[11]](#endnote-11) and the 21st century has seen 17 of the warmest years on record in the United States—the year 2017 was the 21st in a row to register above average. Moreover, 2017 was among the three hottest years on record globally and the hottest year ever recorded without the influence of an El Niño system. The year 2017 was also the most expensive year on record in terms of wildfire and hurricane damages.[[12]](#endnote-12)

As climate change continues unchecked, large parts of the Middle East, Africa, and Asia could become uninhabitable by human beings this century because of high temperatures, encroaching coastlines, desertification, depleted water resources,[[13]](#endnote-13) and climate related food stress.[[14]](#endnote-14) At least three feet of sea level rise will likely occur over the next century at our current rate of warming.[[15]](#endnote-15) Even under the best case scenario large portions of occupied coastal regions, including significant sections of major coastal cities around the world, will be flooded by 2100.

In order to feed a projected planetary population of 9.8 billion people by 2050, agricultural production must increase by 70 percent, according to the Food and Agricultural Organization of the United Nations.[[16]](#endnote-16) The effects of climate change compromise our ability to meet such demands. In addition to increasing heatwaves, droughts, floods, wildfires, and rising sea levels, the ecological stress of warming oceans and acidification make it increasingly difficult to sustain productive food harvests from already over-fished waters.[[17]](#endnote-17) A further complication is the fact that significant greenhouse gas emissions result from our current agricultural practices—especially meat production.[[18]](#endnote-18) Consequently, efforts to increase food production by means of standard agricultural practices will only accelerate climate change.[[19]](#endnote-19) It follows that our current agricultural systems, under conditions of climate change, are incapable of meeting global food demands projected for the next century. As global food stress mounts and environmental conditions deteriorate, we should expect population migrations.

Estimates of how many people will be displaced in coming decades vary, but given what we know about the impacts of climate change on low lying coastal regions, mass relocations are inevitable. Indeed, there is evidence that climate immigration is already underway in low lying regions immediately vulnerable to rising oceans and storm surges.[[20]](#endnote-20) Increasingly desperate conditions can change gradual migration to a refugee crisis, with the political, social, and ethical issues that large groups of refugees are likely to face and to trigger.

Evidence suggests that climate change was a contributing factor in the outbreak of the Syrian civil war—and therefore in Europe’s subsequent refugee crisis.[[21]](#endnote-21) As that refugee influx illustrated, the destabilizing political impacts of humanitarian crises are far reaching. In particular, increased refugee influx to Europe and North America has already inflamed xenophobia among some citizens, and contributed to a trend in nationalistic political movements not seen to this degree since the first half of the 20th century.[[22]](#endnote-22) History teaches us that cultural displacement increases the risk of genocidal violence in its physical form.[[23]](#endnote-23) In turn, nationalistic isolationism, and violence, make addressing climate change all the more difficult.[[24]](#endnote-24)

So far, much of what I have recounted can be anticipated under the near best case scenario of holding warming to no more than 2 degrees Celsius above preindustrial temperatures. We must therefore acknowledge that successfully responding to global warming at this point still represent a moral failure on the part of world leaders who have actively neglecting the problem for so long—despite half a century of warnings.[[25]](#endnote-25) The 2015 Paris accord represents tentative progress. However, under current Paris accord commitments, if all nations successfully reach their voluntary goals, the world will still warm by approximately 3 degrees Celsius (5.4 degrees F) above the preindustrial average.[[26]](#endnote-26) A world warmed to 3 degrees Celsius beyond preindustrial temperatures is not considered safe for humanity. It was the Pliocene period, three million years ago, when the earth was last 3 degrees Celsius warmer than our preindustrial average—a geological time when seas were around 25 meters (82 feet) higher than current levels.[[27]](#endnote-27) For the nonbinding Paris agreement to succeed, every nation must reevaluate and gradually tighten their mitigation goals—a fact acknowledged in the accord. The longer we delay, the more difficult a realistic global response to climate change becomes, and the more devastating our losses will be. Indeed, philosopher John Nolt has proposed that the Intergovernmental Panel on Climate Change (IPCC) incorporate casualty projections in their assessment reports to better communicate the threat of persistent warming.[[28]](#endnote-28)

In order to give low lying island nations the greatest chance of continued existence, we must hold warming to no more than 1.5C (2.7 degrees F) above preindustrial temperatures.[[29]](#endnote-29) This goal, at the time of writing, is possible. Substantial cuts in greenhouse gas emissions need to be implemented, immediately by all nations, with the goal of peak greenhouse gas emissions by 2020 and net-zero carbon emissions following sometime in the next two decades. Moreover, carbon sequestration technology will need to be developed at a scalable level to meaningfully reduce carbon emissions already in the atmosphere.[[30]](#endnote-30) We currently have access to more fossil fuel stores than can be burned safely. Countless lives depend on the managed decline of greenhouse gas emissions beginning immediately.

In an ideal world, occupied by reasonable people of good will, politicians and business leaders would have worked hard to meet the challenges of climate change, ushering in a better, more sustainable world for future generations once anthropogenic global warming was confirmed by the scientific community. In the actual world, scientists have been insistently warning global leaders, and indeed the Intergovernmental Panel on Climate Change has regularly put out assessments of the science for policy makers, since its formation in 1988—the same year that Climate Scientist James Hanson testified on the dangers of global warming before the United States Congress. Given the threat to humanity posed by climate change, one must ask: Why has so little been done at a corporate and political level to address global warming?

**Part II: Humanitarian Crime**

At the time of this writing the majority of Republicans holding federal legislative office embrace the rejection of consensus climate science as a political platform.[[31]](#endnote-31) In the 2016 midterms, virtually none of the Republican candidates for presidency openly acknowledged that human beings drive global warming and that climate change is a threat in need of urgent action.[[32]](#endnote-32) The former CEO of ExxonMobil, a company currently under investigation for its deceptive statements on climate change, is now the U.S. Secretary of State.[[33]](#endnote-33) The United States Secretary of Energy,[[34]](#endnote-34) and the head of the Environmental Protection Agency,[[35]](#endnote-35) both publicly deny the scientific consensus that humans are driving global warming—despite every scientific resource available to them. What little progress was made during the Obama administration on climate change is currently being reversed by the Trump administration.

The political rejection of established science corresponds with longstanding efforts, funded by the fossil-fuel industry, to spread disinformation on climate change.[[36]](#endnote-36) The fossil fuel industry has a long track record of campaign contributions to politicians willing to publicly contradict the scientific community on global warming—contributing to polarization in the United States.[[37]](#endnote-37) As historians of science Naomi Oreskes and Erik M. Conway have shown, in their book *Merchants of Doubt* (2010), corporate efforts to mislead the public and influence policy makers regarding climate science closely mirror efforts by the tobacco industry to create doubt over the link between smoking and cancer. Indeed, we now know that the same strategies were purposefully employed, and even some of the same individuals were involved in both disinformation campaigns.[[38]](#endnote-38)

An example of the fossil fuel industries’ political influence was reported recently in the New York Times. Robert E. Murray, the head of Murray Energy, which is one of the nation’s largest coal companies, provided the incoming Trump administration with an “Action Plan” shortly after donating $300,000 for the President’s inauguration.[[39]](#endnote-39) This is a policy directive, from the coal industry to the president, and several of its dictates were realized during Trump’s first year in office: including repeal of the Clean Power Plan (regulating greenhouse gas emissions from coal plants) and US withdrawal from the 2015 Paris accord. It is no stretch to say that representatives of the fossil fuel industry and the politicians who do their bidding, behave with dangerous disregard for public health and human safety.

This behavior, as I have argued elsewhere, fits the typical standard of criminal negligence:

Criminal negligence is normally understood to result from failures to avoid reasonably foreseeable harms, or the threat of harms to public safety, consequent of certain activities. Those funding climate denial campaigns can reasonably predict the public’s diminished ability to respond to climate change as a result of their behaviour. Indeed, public uncertainty regarding climate science, and the resulting failure to respond to climate change, is the intentional aim of politically and financially motivated denialists.[[40]](#endnote-40)

Criminal negligence was charged against scientists in Italy, erroneously in my view, for alleged failure to clearly communicate earthquake risks to citizens of L’Aquila prior to that city’s devastating 2009 earthquake. Unlike the L’Aquila case, disregard for evidence of accelerating global warming on the part of corporate and political policy makers is a better candidate for criminal negligence. In the latter case the scientific community has been very clear about the risks of climate change, but many political and corporate policy makers have ignored their findings. If a law meant to protect innocent lives from foreseeable harms is meaningful it must be universalizable to environmental threats—including the foreseeable disruption of stable climatic conditions. Given the global magnitude of climate change, such culpable negligence necessarily constitutes a crime against humanity.

To understand the relationship between anthropogenic global warming and crimes against humanity one need only consider the large-scale displacement that will follow from polices known to accelerate climate change. As I have written:

It is a fact that those least responsible for global warming, the global poor living in the global south, are most immediately vulnerable to climate change. This reality carries profound moral implications. Whole island nations in the southern hemisphere, such as the South Pacific’s Kiribati, Tuvalu, the Marshall Islands, and the Indian Ocean’s Maldives, are under threat from rising seas. Citizens of these and other low-lying regions will be, or are already being, forced to assimilate to other lands. When indigenous populations are displaced and subjected to forced assimilation by outsiders exploiting resources for their own profit it constitutes a form of cultural genocide – and history teaches that the large-scale displacement of cultural groups can raise the risk of physical genocide. Consequently, if any nation were to enact policies calculated to systematically destroy cultural lands and displace native people, as climate change will, it would rightly raise international debates over genocide. It makes no difference to populations forced off their homelands whether the resource exploitation responsible is occurring in West Virginia or Papua New Guinea. The moral, and existential, implications of human-caused climate change should by now have triggered full-scale, second world war style effort to end fossil fuel dependence and associated greenhouse gas emissions […] We can’t pretend we don’t know the nature of what is unfolding.[[41]](#endnote-41)

The concept of crimes against humanity has evolved with hindsight, in the wake of tragic events that are sometimes difficult to grasp fully while they are still unfolding. Yet unlike past crimes against humanity, the institutional frameworks for which came to light only later, once the worst crimes had occurred, the politicized attempt to silence climate scientists and to discredit climate science, along with the promotion of policies that accelerate anthropogenic global warming, are actions we can already understand in the context of their financial and political motivation.

There is no greater crime against humanity than the systematic destruction of conditions necessary for the survival of humanity. No reasonable excuse exists for corporate or political agents to favor profit over foreseeable existential threats to human civilization. Yet in reality, this is what they are doing. Therefore, lacking any viable federal body to organize national efforts, institutions such as universities, hospitals, and political organizations that would not wish to be complicit in crimes against humanity must divest financially from the fossil fuel industry.

**Part III: Fossil Fuel Divestment**

There are at least three ethical arguments as to why such institutions cannot continue investing in fossil fuels without being morally implicated in accelerating global warming: (a) the argument from negative responsibility or doctrine of acts and omissions; (b) the argument from moral complicity; and (c) the argument from unethical collaboration.

1. Negative Responsibility

According to the concept of negative responsibility, one can be ethically responsible for reasonably foreseeable harms which one could act to prevent, but instead allows through inaction. This is sometimes referred to as the doctrine of acts and omissions.[[42]](#endnote-42) The doctrine is implied by John Stuart Mill’s articulation of the “harm principle” and illustrated in the following passage from Mill’s *On Liberty*:

If any one does an act hurtful to others, there is a prima facie case for punishing him, by law, or, where legal penalties are not safely applicable, by general disapprobation. There are also many positive acts for the benefit of others, which he may rightfully be compelled to perform; such as to give evidence in a court of justice; to bear his fair share in the common defense, or in any other joint work necessary to the interest of the society of which he enjoys the protection; and to perform certain acts of individual beneficence, such as saving a fellow-creature’s life, or interposing to protect the defenseless against ill-usage, things which whenever it is obviously a man’s duty to do, he may rightfully be made responsible to society for not doing. A person may cause evil to others not only by his actions but by his inaction, and in either case he is justly accountable to them for the injury […] To make any one answerable for doing evil to others is the rule; to make him answerable for not preventing evil, is comparatively speaking, the exception. Yet there are many cases clear enough and grave enough to justify that exception.[[43]](#endnote-43)

By continuing to invest in fossil fuel holdings, large institutions actively disregard the environmental consequences of those industries’ profits and the ethical status of such profiting. Like fossil fuel corporations themselves, large institutions such as universities and health care systems invest in order to make a profit. The decision to divest might be made in a fiscally responsible way, but it is an ethical decision. Even if individual institutions cannot alter the activities of fossil fuel companies, collectively, as leaders in a divestment initiative, they can prompt a larger movement. They can likewise clarify a powerful public message: long term plans to continue burning fossil fuels are neither sustainable nor morally acceptable. This is an important social counter to disinformation campaigns in the public sphere. Institutions such as hospitals and universities maintain a public and professional trust to preserve the necessary conditions for the life, health, education, and safety of those they serve—and they are morally answerable if they enable others, by omission, to undermine their obligations.

1. Argument from Moral Complicity

In their book *On Complicity and Compromise* (2015), Chiara Lepora and Robert E. Goodin write:

Agents who are complicit […] contribute to (without participating as a co-principal in) wrongdoings committed by someone else. […] If we are looking for what is the minimum condition for your being complicit with another in his wrongful actions it is (a) not the intention to share in a joint action with him, still less (b) an intention to pursue a purpose that you share with him. It is […] in each case: (a’) contributing to his wrongful actions, and doing so (b’) knowing that you contribute to his doing wrong.[[44]](#endnote-44)

In failing to divest from fossil fuels, large institutions (e.g. universities, states, and municipalities) contribute to the bad actions of fossil fuel companies in a directly financial way. This renders institutions complicit in the bad actions of fossil fuel companies and therefore also in the resulting harms. In the case of climate change, countless lives, possibly all of humanity, are placed at risk, and even a small financial contribution to such harm is morally damning.

Fossil fuel companies, and their political advocates, have been clear that they support continued exploration for fossil fuels, and extraction, regardless of the fact that we already have more than we can burn safely. Part of the rationale stated publicly by representatives of the fossil fuel industry is that they doubt the veracity of climate science. Yet we know that this “doubt” is disingenuous.[[45]](#endnote-45) Fossil fuel companies deny that fossil fuel reserves will become stranded assets not because their leaders sincerely doubt climate science, but because they do not anticipate the world taking action to address climate change any time soon. Indeed, they have, and in many cases they continue to invest in efforts to delay a governmental response to the danger. Large institutions cannot claim ignorance without being morally culpable for such ignorance, as it is their responsibility as educational, political, and healthcare institutions to be aware of scientific and public issues relevant to the health and safety of those they serve.

1. Moral Collaboration

If world leaders act to address climate change in a meaningful way, then large institutions with investments in fossil fuels will suffer financially because fossil fuels will become stranded assets. As such, any large institution that continues to invest in fossil fuels is either culpably ignorant (morally speaking) about the realities of climate change, or is betting on people’s collective refusal or inability to demand responsible decision making in light of climate change. Like fossil fuel companies, institutions make this bet in order to maximize their short term profits. In the meanwhile, their financial investments contribute to corporate efforts to expand fossil fuel extraction, promote political dithering, and undermine scientific research. By contributing financially to the acceleration of global warming, institutions are not just complicit, but are collaborating with fossil fuel interests as they underwrite our deadly status quo.

**Part IV: In Sum and In Response to Possible objections**

Given what we know about climate change and the short time period we have to respond to it with viable action, institutions that fail to divest from fossil fuels are:

1. Culpably ignorant regarding the existential threats of climate change, and/or
2. In breach of a negative responsibility to act against harms one can help to prevent, and/or
3. Morally complicit with the bad actions of fossil fuel companies, and/or
4. Immorally acting in financial collaboration with fossil fuel company efforts to thwart meaningful action on climate change—thus avoiding stranded assets.

All of this must be assessed in the context of a plausible crime against humanity. Yet even if corporate and political policies promoting the acceleration of climate change were not crimes against humanity (contrary to my claim), the moral implications of inaction regarding climate change are still damning. There is no reasonable way to avoid the conclusion that with the short time frame we have to act, it is unethical for large institutions to continue financial investment in fossil fuels.

The first objection I will consider is the weakest. This is the objection that fossil fuel corporations have a right to propagate disinformation under the auspices of free-speech/expression. It should be obvious that our commitment to free-speech does not license corporate, or political, entities to defraud the public—notably on issues of public safety. This fact is illustrated by investigations into whether ExxonMobil mislead shareholders on how global action to address climate change might impact the company’s financial future.[[46]](#endnote-46) Similarly, free-expression does not warrant negligent behavior—a fact similarly illustrated in New York City’s lawsuit to hold fossil fuel companies responsible for damages linked to climate change.[[47]](#endnote-47) Likewise, multiple lawsuits by young people seeking to force their governments to act responsibly on climate change will hang on whether policy makers have violated their public trust to safeguard a stable environment—not on questions of free-speech.[[48]](#endnote-48)

Even if one were to grant, for the sake of argument, that the wide-scale dissemination of fraudulent information financed by fossil-fuel interests is protected speech, it does not follow that protected speech pardons the speaker from the political, legal, and social ramifications of their expressions—nor, again, from negligent omissions. Indeed, one of the philosophical justifications of free speech is that erroneous ideas, even those worthy of wide-scale moral condemnation, should be exposed to the consequences befitting such expressions. This said, it is worth remembering, nations don’t share one ubiquitous legal code on permissible public speech—and climate change is an international problem.

A second objection might be offered against the claim that corporate and political negligence leading to the acceleration of climate change amounts to a crime against humanity. At present, negligence regarding climate disinformation is not considered a crime against humanity in international law. My argument is that it ought to be. I think there is good reason to imagine that it eventually will be, as the problem of climate change becomes increasingly impossible to ignore. But regardless of that possibility, I argue that we already have a standard of negligence to build upon in judging it as a crime against humanity. Whatever the legal precedent and consequence, I maintain that based upon the human harms entailed in the foreseeable, avoidable contribution to climate change by industries and in the dissemination of misinformation about it by industries and their political representatives, these actions are already cases of moral harm and criminal negligence—deserving the same level of moral condemnation reserved for crimes against humanity.

 The last possible objection I will consider is over fossil fuel divestment. Some might argue that divestment is counter-productive. An alternative is to work with fossil fuel interests to reform their business model. This would be a more promising alternative, had fossil-fuel companies not opted to engage in disinformation advocacy for the last several decades. As things stand, fossil fuel companies have been clear about their dedication to fossil fuel promotion, despite increasing pressure from investors. Indeed, ExxonMobil has been pressured by shareholders to be more forthcoming as to how global efforts to address climate change will impact the company—culminating in the recent passing of a non-binding vote, by shareholders, for more transparency.[[49]](#endnote-49) The company has long resisted such pressure, while arguing that they were already taking into account such impacts and incorporating a long-term strategy to insure investor value.[[50]](#endnote-50) As we have seen, ExxonMobil’s strategy was actually to invest in undermining the advancement of policies aimed at addressing global warming. Among the shareholder groups to instigate pressure was the New York State Employees Retirement Fund. New York State has since announced intentions to divest employee pension funds from fossil fuel investments.[[51]](#endnote-51)

It is unlikely that such pressure would have been brought at all if divestment movements, led by environmentalists like Bill McKibben, were not already making investment in fossil fuel corporations socially objectionable.[[52]](#endnote-52) In an important sense the financial impact of divestment is secondary to the social impact of divestment—as it was when divestment was used effectively against businesses linked to the South African Apartheid system. It bears repeating: The imperative to divest from fossil fuels is a moral one.

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