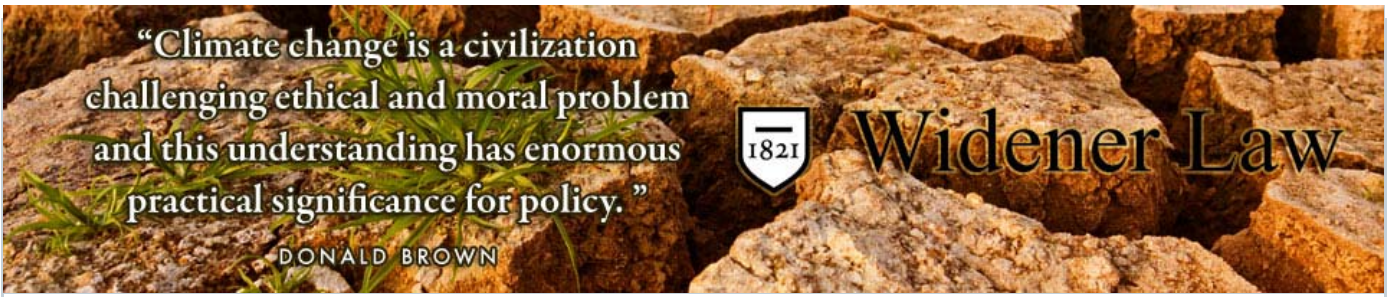
Stopping the Worst Environmental Disaster?

Ethics and Climate
Donald Brown



Stopping the Worst Environmental Disaster?: An Ethical and Scientific Comparison of the Gulf Oil Spill and Climate Change.

I. The Oil Spill and Climate Change Compared.

Over the last two months the U.S. Congress has been engaged in a great operatic drama over what many have called the worst environmental disaster in U.S. history: the BP Gulf oil spill. Last week U.S Congressman angrily grilled BP CEO Tony Hayward about the causes of the disaster and BPs inability to shut off the oil flow. As this took place, the brown and orange slick continued its daily assault on fisheries, birds, and livelihoods.

Although oil leaking from the Deepwater Horizon drilling platform site may in fact be creating the greatest environmental and economic harm in U.S. history so far, there is new evidence that another looming environmental problem is likely to produce far worse environmental and economic impacts not only for the United States but particularly for some of the poorest people around the world. It is also a problem about which the U.S. Congress has done nothing for twenty years: human-induced climate change.

While the US focuses on the Gulf tragedy, climate change causing greenhouse gases continue to accumulate in the atmosphere at ever more dangerous rates. This past week the U.S. National Oceanic and Atmospheric Administration (NOAA) announced that by the end of May atmospheric concentrations of the chief greenhouse gas CO2 had reached an all-time high for at least 2.1 million years, 392.94 parts per million (ppm).

NOAA also announced that May continued a streak that is making this year, 2010, the hottest year on record so far from January through the end of May. Globally the May temperatures was 0.99°F above the 20th century average of 61.3° making it the hottest May on record.

As the globe has been experiencing record heat during the spring of 2010, floodwaters that have been predicted by climate change science are wreaking havoc in many locations world-wide. Disastrous flooding was experienced this spring in France where flash floods hit the back hills of the French Riviera and turned streets into rivers of surging, muddy water. The death toll from the flooding has risen to 25. In Myanmar and Bangladesh, floods and landslides triggered by incessant monsoon rains have killed more than 100 people. China has also experienced devastating flooding this year as well as Brazil. In the United States, flooding in Texas, Nebraska and Wyoming has caused massive damage to farms and homes. Although science cant say that all of these flooding events are directly attributable to human-

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causation, this flooding is predicted by climate change science.

Climate change not only threatens more people, animals, and ecological systems around the world than the Gulf spill; it promises to be a problem that will continually wreck havoc for centuries while harming the world's poorest and most vulnerable people with drought, floods, killer storms, rising sea levels, and vector borne disease.

BP may shut down the oil gusher in the Gulf by the end of the summer, yet the harms from human-induced climate change will likely plague the world for centuries. While the threat from the BP gusher to the wild life in the Gulf is huge, the threat to people, animals, and ecological systems from climate change is much larger. While it is proving difficult to shut down the oil flow from the Deepwater Horizon site, the magnitude of greenhouse gas emissions reductions needed to prevent dangerous climate change is truly civilization challenging. This is so because the world will need to reduce global greenhouse gas emissions from current levels by 80% or greater by the middle of this century to prevent catastrophic climate change as greenhouse gas emissions increase world wide increase at 2% per year under current trends.

Yet, some of the members of the U.S. Congress that are outraged at BP have been resisting meaningful action on climate change. In fact the U.S. Congress has been a barrier to responsible U.S. climate change action since the early 1990s.

There are a few things in common about the Gulf spill and climate change. One lesson of the Gulf oil spill that is an ominous warning about climate change is that the Deepwater Horizon disaster demonstrates that what are often initially believed to be low probability, in fact unforeseeable, catastrophic impacts do happen. (See article on unforseeability) Although even more optimistic predictions of climate change impacts are disastrous for some of the world's most vulnerable people, the upper end of possible human-induced temperature increases in this Century of 5 to 9 o C will be catastrophic and perhaps unimaginable for the world.

Also, some of the U.S. Congressmen who have consistently fought stronger government climate change action have also promoted rapid expansion of deep sea oil drilling. It is also no mere coincidence that most of these Congressmen are also from oil states and are among the greatest recipients of fossil-fuel industry political contributions.

II. Ethical Comparison 0f The Gulf Oil Spill and Climate Change

Although the oil spill raises a few important ethical questions including who should have the burden of proof that a proposed dangerous activity is safe, climate change must be understood essentially as a deep moral global challenge. There are at least three reasons why climate change must be understood as a great, civilization challenging global ethical problem.

First, climate change is a problem caused by some people that adversely affects others. For this reason, as a matter of ethics, those emitting GHGs into the atmosphere may not consider their interests alone in developing policies about their GHG emissions.

Second, the consequences to those who may be most affected by climate change are potentially catastrophic. According to the consensus climate change science view as articulated by the Intergovernmental Panel on Climate Change, human-induced climate changes is already harming and will continue to harm with greater intensity human life, health, food security, plants, animals, and ecosystems upon which humans depends. Without doubt, climate change threatens not only things that humans value highly but life itself especially to those most vulnerable to climate change including tens of millions of people on small island developing states, in sub-Sahara Africa, and Southeast Asia in particular.

Third, the national governments to which citizens of the world belong are not constituted to protect the interests of non-citizens, yet climate change will often affect non-citizens most harshly. Because people in one nation cannot assume that existing governments will protect those who might be harmed by their behavior, they must consider whether they have ethical obligations to those who are separated from themselves both in time and great distance. In other words, climate change raises with force the question of whether some people have obligations and duties to others that needs to be considered in developing climate change policies as the national, regional, and local level.

Since international climate change negotiations began in 1990, arguments against effective international climate change regimes as well as meaningful national action on climate change have most frequently been of two types: economic arguments about the costs of mitigating climate change and arguments about the scientific evidence for climate change and its impacts.

By far the most frequent arguments made in opposition to climate change policies are economic predictions of various kinds such as claims that proposed climate change legislation will destroy jobs, reduce GDP, damage businesses such as the coal and petroleum industries, increase the cost of fuel, or simply that the proposed legislation can't be afforded by the public. However, many economists now believe that the costs of doing nothing far outweigh the costs non-action. (See, for example the report of Sir Nicolas Stern that concluded if there is any possibility that there could be unexpected abrupt climate changes, the loss to the global economy could be as much as 20 percent of GDP per year. (Stern 2006, vi)). If cost is an important consideration in any decision to take preventative action, then the cost of non-action must also be considered. In fact, the Gulf spill is demonstrating that the costs of prevention such as drilling another relief well or adding a back-up blowout protector would have been far cheaper than the costs of clean up, remediation, and compensation for damages.

Particularly ethically troubling in the case of climate change is how most costs estimates of the harms of climate change have dealt with these potentially catastrophic climate change impacts. For instance, some climate models predict as much as 6 o C warming by the end of this century and as one economists honestly admits the impacts of 6 o C warming is "located in the *terra incognita* of what any honest modeler would have to admit is a planet Earth reconfigured as science fiction. " (Weitzman 2007:716) One commentator has noted that: " It is simply absurd to attempt to measure these impacts in monetary terms." (Alred 2009: 479). Yet ethics would require that we seriously consider all possible catastrophic outcomes, a significant of limitation of how most economic analyses have usually quantified the benefits of climate change policies.

The second most frequent argument made by opponents of climate change policies are assertions that governments should not take action on climate change because adverse impacts have not been sufficiently scientifically proven. These arguments range from assertions that what is usually called the "main-stream" scientific climate change view is a complete hoax to milder assertions that the harsh climate change impacts on human health and the environment predicted by the Intergovernmental Panel on Climate Change and other scientific institutions or individual researchers are unproven

There is new scientific information that is galloping in that indicates huge potential harms of human-induced climate change. Although the Intergovernmental Panel On Climate Change (IPCC) found that there was discernible human influence on the climate system over 15 years ago, climate skeptics continue to try and convince people that human causation of the warming we are seeing is not supported by the evidence. They argue that there is a real division among climate scientists about human causation. Yet, a 2009 survey found that over 97% of actively publishing climate scientists are convinced humans are significantly changing global

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temperatures (Doran 2009). An even newer study published in April, 2010 found that 97-98% of the climate researchers most actively publishing in the field support the tenets of anthropogenic climate change as outlined by the Intergovernmental Panel on Climate Change (Anderegg 2010).

If there is any doubt that most scientists agree with the consensus view, The following scientific organizations endorse the consensus position that "most of the global warming in recent decades can be attributed to human activities": (Skeptical Science, 2010):

• American Association for the Advancement of Science
• American Astronomical Society
• American Chemical Society
• American Geophysical Union
• American Institute of Physics
• American Meteorological Society
• American Physical Society
• Australian Coral Reef Society
• Australian Meteorological and Oceanographic Society
• Australian Bureau of Meteorology and the CSIRO
• British Antarctic Survey
• Canadian Foundation for Climate and Atmospheric Sciences
• Canadian Meteorological and Oceanographic Society
• Environmental Protection Agency
• European Federation of Geologists
• European Geosciences Union
• European Physical Society
• Federation of American Scientists
• Federation of Australian Scientific and Technological Societies
• Geological Society of America
• Geological Society of Australia
• International Union for Quaternary Research (INQUA)
• International Union of Geodesy and Geophysics
• National Center for Atmospheric Research
• National Oceanic and Atmospheric Administration
• Royal Meteorological Society
• Royal Society of the UK

The Academies of Science from 19 different countries all endorse the consensus. 11 countries have signed a joint statement endorsing the consensus position. They are:

• Academia Brasiliera de Ciencias (Brazil)
• Royal Society of Canada
• Chinese Academy of Sciences
• Academie des Sciences (France)
• Deutsche Akademie der Naturforscher Leopoldina (Germany)
• Indian National Science Academy
• Accademia dei Lincei (Italy)
• Science Council of Japan
• Russian Academy of Sciences
• Royal Society (United Kingdom)
• National Academy of Sciences (USA):

(Skeptical Science, 2010):

A letter from 18 scientific organizations to the US Congress says:

> *Observations throughout the world make it clear that climate change is occurring, and rigorous scientific research demonstrates that the greenhouse gases emitted by human activities are the primary driver. These conclusions are based on multiple independent lines of evidence, and contrary assertions are inconsistent with an objective assessment of the vast body of peer-reviewed*

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science. (Letter to US Congress, 2009) (See Skeptical Science, 2010 for links to all of the above)

Without doubt, there is a clear scientific consensus that humans are changing the climate and threatening great harm to some of the poorest people around the world. But even one assumes, for the sake of argument, that there is more scientific uncertainty about human causation of climate change impacts than recognized in the above statements of scientists around the world, there is a strong ethical duty to avoid the huge potential harm entailed by human-induced warming. In other words, ethics would not allow non-action on climate change because the potential harms have not been proven. After reaching some level of scientific consensus that serious harms are possible, ethics would shift the burden of proof to those who want to continue risky behavior. This fact about climate change has been lost in the U.S. climate change debate.

The ethical duty to avoid risky behavior is proportional to the magnitude of the potential harm. Because climate change is likely to cause death to many, if not tens of millions of people, through heat stroke, vector borne disease, and flooding, annihilate many island nations by rising seas, cause billions of dollars in property damage in intense storms, and destroy the ability of hundreds of millions to feed themselves in hotter drier climates, the duty to refrain from activities which could cause global warming is extraordinarily strong even in the face of uncertainty about consequences.

Both the economic and scientific arguments against climate change policies implicitly argue that climate change policies should be opposed because they are not in a country's national interest. The responses of advocates of climate change policies to these arguments are almost always to take issue with the factual economic and scientific conclusions of these arguments by making counter economic and scientific claims. For instance, in response to economic arguments opposing climate change legislation, proponents of climate change action usually argue that climate change policies will create jobs or are necessary to develop new energy technologies that are vital to the health of a national economy in the future. In responses to the lack of scientific proof arguments, climate change advocates usually stress the harsh environmental impacts to people and ecosystems that climate change will cause if action is not taken or argue that climate change science is settled. In other words, advocates of climate change action, respond to claims of opponents to climate change programs by denying the factual basis for the claims of their opponents.

By simply opposing the factual claims of the opponents of climate change, the advocates of climate change policies are implicitly agreeing with the assumptions of the opponents of climate change action that greenhouse gas reduction policies should not be adopted if they are not in national self-interest.

Yet, if climate change raises ethical questions, then strong arguments can be made that nations have not only national interests but also duties, responsibilities, and obligations to others. However, ethical arguments that could counter the national-interest based arguments are rarely heard in the climate change debate and are now virtually absent in the U.S. discussion of proposed domestic climate change legislation. We never hear, for instance in the United States that we should enact climate change legislation because our emissions are harming others.

Although the BP oil spill seriously threatens those who live along the Gulf of Mexico, U.S. intransigence on climate change threatens the entire world; a fact that is causing rising anger around the world. Yet the U.S. Congress continues to resist action on climate change on the basis that it will harm some U.S. economic interests, while ignoring our duties, responsibilities, and obligations to others to reduce U.S. greenhouse gas emissions to the U.S. fair share of safe global releases.

For this reason, while the BP oil spill can be rightfully be understood as a disaster, U.S. Congressional inaction on climate change must be understood as a huge moral failure that is leading to an even greater disaster. In fact, climate change is leading to potential harsh impacts that we cannot predict with high levels of precision. We can get some vision of what might happen if we have another oil spill in the Gulf and this vision is clearly a nightmare for those living around the Gulf. The potential harms from climate change are potentially much worse, yet the defy accurate description if temperatures increase is experienced at the upper end of the potential range. And even if these impacts are not deadly for the majority of humans, they are a death sentence for some, mostly likely measured in the millions.

Given all of this, a strong case can be made that the preoccupation with the Gulf spill is unfortunately taking focus off the most important, challenging, alarming environmental problem of our time: Big, big, problem, yes but wrong priority for the United States.

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June 25, 2010 at 2:11 pm Donald A. Brown