

The Politicization of Climate Change

A Book Review of What We Know About Climate Change

By Ramsey Alsheikh

The Earth was a god. The Greeks called her Gaia, the Romans called her Terra, the modernist called her Mother Nature; she went by many names, but her godship was never disputed. Traditionally, Earth deities have embodied such divine virtues as mercy, gratuity, love, grace, motherhood, power, and virtually every other ethical value one can think of. Indeed, for most of human history, the Earth has been a god, untouched by humans, a ruler of men and women, eternal, unchanging, divine.

As such, Kerry Emanuel's What We Know About Climate Change is nothing short of heresy. To suggest that the Earth, in all her divinity, could be affected by the actions of mere mortals is an extremely novel concept. Indeed, a guerdon of populist (usually conservative) politicians in the United States actively seeks to excommunicate this "heresy", disguising business interest and corporate greed as rational doubt as to the urgency or even existence of the climate problem. Given this extremely worrying political situation, it is clear to see that Emanuel's book is an extremely important contribution to the field of popular environmental science. In simple and understandable language, it lays out the objective, scientific fact of our climate situation, dispelling common myths and lies perpetuated by U.S. political entities - What We Know About Climate Change is a must read for anyone concerned with the fate of our planet.

Emanuel begins his book with a brief overview of the history of Earth, in order to demonstrate changes in the climate can have huge effects on the geologic state and biological carrying capacity of the planet. He highlights how the Earth in the past has altered its climate with remarkable speed, shifting between ice ages and heat waves in the blink of a geologist's eye. He guides the reader through the interconnectedness and fragility of our planet, how small variations in sunlight or small changes in atmospheric composition can lead to feedback loops that drive extinctions. Emanuel characterizes the climate as a "chaotic system", a system so intricate and complex that even small variations in the initial state of the system will lead to drastic changes given a long enough period of time. Yet, despite this inherent limitation, he lays out how computer simulations can still be used to give rough estimates of how the climate will evolve over time.

The consequence of this cannot be understated. Emanuel emphasizes that our civilization is carefully calibrated to exist in our current climate, and even a small change is unprecedented in human history. Although climate change will have a couple of positive effects, it is accepted scientific fact that it could potentially have catastrophic consequences: unchecked sea level rise, increased intensity and frequency of hurricanes, tropical storms, flooding and droughts, as well as all of the armed conflicts that could spawn as a result, ocean acidification, etc. Although climate scientists have standards of agreed upon facts about climate change, published through the IPCC, political and business entities make use of rare mavericks in the scientific community who disputed commonly accepted facts to push their private agendas forward. This is especially harmful because, although the climate problem can be handled through simple adaptation or

potentially through geo-engineering, the most practical solutions require mitigation that must go through political channels.

One of Emanuel's most valuable central ideas is that, although it is true that there is inherent uncertainty in climate science, there are plenty of commonly accepted notions that cannot be reasonably disputed. Emanuel readily admits that the Earth's climate is so complex and influenced by so many different factors that it is essentially a "chaotic system"; he also admits that "it is not possible...to foresee the outcomes of such chaotic systems in detail beyond certain time limits". Yet, Emanuel goes on to argue that, despite the uncertainty, science can still divine plenty of information from all this chaos. This is an especially relevant argument to address to the general public due to a psychological phenomenon known as the Ellsberg Paradox. To quote a 2014 IPCC report on the mitigation of climate change, "The Ellsberg paradox revealed that... most decision makers... prefer choice options with well-specified probabilities, over options where the probabilities are uncertain...[except] when decision makers believe they have expertise in the domain of choice" (pg. 163). The IPCC report cites this paradox as a tool that disinformation campaigns target to propagate the idea that climate change is somehow a hoax (Kunreuther, 2014). The way to solve the paradox is by making the public feel as though they have expertise in the area of climate science - this is the exact goal of Emanuel's book. By providing accessible access to expertise on the climate problem, Emanuel is helping the public move past political disinformation techniques that rely on the Ellsberg paradox.

Another one of Emanuel's most important insights can be found in his argument that the barriers between environmentalism and political conservatism are largely artificial, and that conservatives have an economic interest in fighting the climate problem. As Emanuel details,

American conservatism's disdain for foreign oil and an interest in nuclear power go well with other legislative initiatives to combat climate change. Unfortunately, an over-fixation on the economic consequences of certain environmental policies has pushed the GOP to excessive climate-change skepticism or even denial. By broaching this topic, Emanuel brings up an important point - if, as a country, we can draw attention to the economic potential of certain climate initiatives, it may be possible to re-calibrate the political debate on climate to a productive and workable state. According to a 2016 International Finance Corporation report, the market for climate-smart investments will reach \$23 trillion by 2030 (Climate Investment Opportunities, 2016). Furthermore, as climate technology develops and matures, it is doubtless that new industries and new jobs will be created that will inevitably stimulate our economy. Initiatives to foster this emerging market, instead of political debate to stifle it, will greatly help our country's economy in the long-run as well as mitigate the climate crisis. By highlighting the economic benefits of fighting climate change, Emanuel dispels the common belief that mitigating climate change and growing the economy are diametrically opposed.

Perhaps Emanuel's most surprising point about climate change is that the increased utilization of nuclear energy is a potential solution to the climate problem, but that leftist environmentalists oppose such a tactic on unreasonable grounds. He criticizes the environmental movement to switch to clean energy alternatives like solar and wind, which are inherently intermittent and unreliable, while ignoring or even disparaging the much more practical nuclear option. Indeed, the perception of nuclear weapons as particularly dangerous is mostly unfounded. In fact, the total number of casualties stemming from nuclear energy related incidents is much, much lower than that of any other form of energy - even including Chernobyl (a mishap in the

early days of nuclear power) and Fukushima (which was entirely preventable) (Jogalekar, 2013). As Emanuel states, the main opposition to the implementation of a safe, clean nuclear energy infrastructure in this country (as exists in France, where most energy comes from nuclear sources) is mostly political and not scientific. For any serious solution to climate change, nuclear energy will be essential.

Emmanuel's book is groundbreaking for its accessible introduction to climate science. It accurately yet simply pins down the basics of the climate problem. Deftly woven throughout the entire work are political critiques that objectively dispel common myths about climate change that hold back the political discussion from any reasonable conclusion. Highlighting how the uncertainty in climate science does not invalidate the scientific consensus, how conservatives and the economy both have much to gain by supporting climate initiatives, and how actors on the left side of the spectrum are also responsible for the ossification of the climate debate through their irrational skepticism of valid energy alternatives, Emanuel makes a compelling case for the de-politicization of climate change. It will be up to us readers to carry his words to our representatives, on both sides of the aisle.

Emanuel's fundamental arguments are strong and backed by irrefutable scientific consensus. His core arguments are extremely relevant and helpful to the end of bettering the layperson's understanding of this issue. Although it occasionally gets lost in the details of climate science, the overall focus of the book on the urgency of the climate problem is on point. The political arguments the book makes are sound and not rooted in a partisan agenda as well. Overall, it is an extremely valuable read for anyone, regardless of political stance.

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