

# BACKGROUNDER

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## After Paris: Next Steps for the Trump Administration's International Climate Agenda

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#### Abstract

President Trump announced his intentions to withdraw the U.S. from the Paris Agreement. On multiple occasions since the announcement, he has mentioned renegotiating the agreement. No amount of negotiating will change the fact that international climate accords are costly non-solutions that commit both the developed and developing world to lower standards of living. If the President does attempt to renegotiate the Paris Agreement, he should insist that the agreement inflict no economic harm, make meaningful climate benefits, and be submitted to the Senate for advice and consent. Ultimately, however, the President should recognize the framework is an unworkable and ineffective tool for addressing climate change and withdraw from the United Nations Framework Convention on Climate Change.

In June, President Trump announced that the U.S. would withdraw from the Paris climate accord. Withdrawing from the Paris Agreement is a wise decision. Compliance would impose significant costs on the U.S. economy and allocate billions of taxpayer dollars to subsidize green energy technologies that are not commercially viable. Indeed, in the highly unlikely event that every country met its promised targets from the agreement, the abated warming would be practically undetectable.

The U.S. must wait until November 2019 to formally submit a notice of withdrawal, which would take effect a year later. President Trump can take several steps in the meantime to protect taxpayers and expedite the withdrawal process:

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### **Key Points**

- President Trump has announced the U.S. will withdraw from the Paris Agreement. The accord is a costly non-solution regardless of the realities of climate change.
- No amount of negotiating or expanding the pool of subsidies to different technologies will change the energy realities of today and the future. Carbon-dioxide-emitting conventional fuels are going to play a critical role in meeting the world's energy needs.
- If the U.S. were to renegotiate the Paris Agreement, the White House should strictly insist that the agreement inflict no economic harm, provide meaningful climate benefits, and be submitted to the Senate for advice and consent.
- The Green Climate Fund is distorting energy markets and encouraging corruption. The U.S. should cease contributing to the fund, but use its seat on the Fund's board to encourage funding of targeted, effective adaptation projects.
- President Trump should also withdraw from the United Nations Framework Convention on Climate Change, which has proven to be a costly and ineffective tool for addressing climate change.

- Withdraw from the United Nations Framework Convention on Climate Change (UNFCCC), which has proven to be a costly, ineffective, and unworkable tool for addressing climate change.
- **Make** any future agreements (including possible re-entry to the UNFCCC) contingent on ratification from the Senate, thus preventing any future administration from circumventing the treaty process—as President Obama did with the Paris Agreement.
- **Cease** from making any further contributions to the Green Climate Fund, which was conceived as a tool for incentivizing developing country participation in the Paris accord, but in reality distorts energy markets and encourages corruption. The U.S. should instead use its seat on the Fund's board to encourage funding of targeted, effective adaptation projects.

In addition, if renegotiation of the Paris Agreement becomes a reality, as President Trump mentioned, the U.S. should set strict conditions for rejoining what remains a fundamentally flawed and misconceived project. The U.S. also needs to take advantage of its leadership role in the areas of energy and environment to demand and produce improved scientific data on climate change.

#### Current Energy and Climate Change Realities

Proponents of the Paris Agreement argue that the accord is just a first step, and that even a little progress toward abated warming is a step in the right direction. Further, proponents claim that minimal temperature impacts do not take into account potentially more aggressive greenhouse gas cuts beyond 2030.<sup>1</sup> Howev-

er, the supposition that countries will stick with their respective targets leading up to 2030 and that post-Paris negotiations will lead to deep global de-carbonization of the energy is a rather large and very generous assumption, if not purely wishful thinking.

**Flaw Number One: Business-as-Usual Economics.** A critical flaw in the Paris Agreement is its perpetuation of business-as-usual, particularly for the developing world. In fact, the current and projected use of fossil fuels, including coal, indicate neither near-term nor long-term targets are attainable. The business-as-usual aspect of Paris is evident in the world's continued pursuit of more coal as a dependable energy source.

- Climate Action Tracker estimates that more than 2,400 coal-fired power plants will be constructed by 2030, the vast majority in developing countries.<sup>2</sup>
- Berlin-based Urgewald projects a lower but still significantly high count of 1,600 new coal-fired generation plants under construction or planned, resulting in 840,000 megawatts of new capacity.<sup>3</sup>

Prioritizing economic growth in the developing world will increase greenhouse gas (GHG) emissions. Along with China and India, Bangladesh, Indonesia, Pakistan, South Africa, Thailand, Turkey, Vietnam, Zimbabwe, and many others are building or proposing to build new coal plants at a rapid clip.<sup>4</sup> In total, Urgewald calculates that new plant estimates represent a 43 percent global expansion of coal spread across 62 different countries, 14 of which previously have not had any coal power at all.<sup>5</sup> Pakistan, in its nationally determined contribution (NDC), which outlines what each country will do to combat global warming, quite bluntly stated:

Brad Plumer, "What to Expect as U.S. Leaves Paris Climate Accord," *The New York Times*, June 1, 2017, https://www.nytimes.com/2017/06/01/climate/us-paris-accord-what-happens-next.html (accessed July 18, 2017).

Pieter van Breevoort, Kornelis Blok, Markus Hagemann, Hanna Fekete, Niklas Höhne, Bill Hare, Michiel Schaeffer, Marcia Rocha, and Louise Jeffery, "The Coal Gap: Planned Coal-fired Power Plants Inconsistent with 2°C and Threaten Achievement of INDCs," Climate Action Tracker, December 1, 2015, http://climateactiontracker.org/assets/publications/briefing\_papers/CAT\_Coal\_Gap\_Briefing\_COP21.pdf (accessed July 18, 2017).

<sup>3.</sup> Urgewald, "Companies on Coal Expansion Course Exposed," https://coalexit.org/database (accessed July 18, 2017).

Christine Shearer, Nicole Ghio, Lauri Myllyvirta, Aiqun Yu, and Ted Nace, "Boom and Bust: 2017 Tracking the Global Coal Plant Pipeline," Coalswarm/Sierra Club/Greenpeace, March 2017, http://endcoal.org/wp-content/uploads/2017/03/BoomBust2017-English-Final.pdf (accessed July 18, 2017).

<sup>5.</sup> Ibid.

Given the future economic growth and associated growth in the energy sector, the peaking of emissions in Pakistan is expected to take place much beyond the year 2030. An exponential increase of GHG emissions for many decades is likely to occur before any decrease in emissions can be expected.<sup>6</sup>

The continued use of coal demonstrates the futility of the Paris Agreement in achieving any averted warming.

Furthermore, there is no guarantee the industrialized world will meet their own targets. Developed countries such as Germany, Japan, Poland, and South Korea also have plans for significant coal plant expansions.<sup>7</sup> Japan plans to build 41 coal-fired electricity-generating units, which it admits will make it very challenging to meet its NDC.<sup>8</sup>

**Flaw Number Two: Zero Accountability.** The Paris Agreement is non-binding, and countries would face no legal repercussions if they fail to meet their respective pledges. If past international commitments are any indication, many countries could fall short of their Paris pledges.

The predecessor to Paris, the Kyoto Protocol, had legally binding but largely unsuccessful GHG targets.<sup>9</sup> As President Obama frankly put it, "Kyoto was legally binding and everybody still fell short anyway."<sup>10</sup> Nearly half of the 36 countries with binding GHG emissions targets failed to meet the first round of commitments. Many countries had to buy carbon credits to meet their pledges and were aided by the 2008 financial recession that slowed economic output and consequently reduced emissions. For former Soviet states, emissions were falling before Kyoto was signed.<sup>11</sup> Canada withdrew from Kyoto in 2012; Japan, New Zealand, and Russia stated that they would not participate in the second commitment period of Kyoto requiring additional cuts in GHG emissions. A non-binding accord like the Paris Agreement, which perpetuates the economic status quo for the developed and developing worlds alike, can hardly hope for a better outcome.

Projecting the shape and scope of climate policy, the energy mix, or the global economy beyond 2030 is an immensely difficult task. Global coal consumption may be significantly lower than projected, or, as energy demands grow, consumption could increase. It is unwise for the U.S. to base costly, ineffective policy today on an unrealistic dream for present day reality and unknowable future energy markets.

# The Paris Agreement: Breakdown of Costs and Inefficiences

The withdrawal from the Paris Agreement is not about prioritizing the economy over the planet. Rather, it is a recognition that the climate accord is a costly non-solution, regardless of position on climate change. The accord is an unworkable, ineffective approach, even if man-made warming or climate change in general is problematic—an undoubtedly contestable supposition.<sup>12</sup> Even if all countries in the Paris Agreement comply with their respective NDCs, the averted warming would be almost undetectable. According to the Model for the Assessment of Greenhouse-gas Induced Climate Change (MAGICC), developed primarily with funding from the Environmental Protection Agency, pledged cuts would only

6. Foster Friess, "The Political Legacy of the Paris Accord Departure," The Washington Times, June 8, 2017,

http://www.washingtontimes.com/news/2017/jun/8/paris-accord-departure-will-have-long-reaching-con/ (accessed July 17, 2017).

- Christian Almer and Ralph Winkler, "Analyzing the Effectiveness of International Environmental Policies: The Case of the Kyoto Protocol," Journal of Environmental Economics and Management, Vol. 82 (March 2017), pp. 125–151, http://www.sciencedirect.com/science/article/pii/S0095069616304296 (accessed July 18, 2017).
- 10. "Obama's Remarks on the Climate Agreement," *The New York Times*, December 18, 2009, http://www.nytimes.com/2009/12/19/science/earth/19climate.text.html (accessed July 18, 2017).
- 11. Michael Le Page, "Was Kyoto Climate Deal a Success? Figures Reveal Mixed Results," New Scientist, June 14, 2016, https://www.newscientist.com/article/2093579-was-kyoto-climate-deal-a-success-figures-reveal-mixed-results/ (accessed July 18, 2017).
- 12. Judith Curry, *Hearing on Climate Science: Assumptions, Policy Implications and the Scientific Method*, testimony to the Committee on Science, Space and Technology, U.S. House of Representatives, March 29, 2017, https://curryja.files.wordpress.com/2017/03/curry-house-science-testimony-mar-17.pdf (accessed July 18, 2017).

<sup>7.</sup> Ibid.

Yuka Obayahi and Ami Miyazaki, "Heavy Reliance on Coal Is Likely to Stymie Japan's Climate Agreement Goals," Reuters, July 5, 2017, http://www.japantimes.co.jp/news/2017/07/05/national/heavy-reliance-coal-likely-stymie-japans-climate-agreement-goals/#.WV0zwujyu71 (accessed July 18, 2017).

slow warming 0.17 degrees Celsius by the year  $2100^{13}$  Other analyses have found similarly meager climate benefits.<sup>14</sup>

The Paris Agreement aims to limit global warming to 2 degrees Celsius above pre-industrial levels. Countries involved in the agreement submitted a non-binding NDC to that goal, setting their respective obligations for keeping temperatures in check through a combination of mitigation and adaptation efforts.

Complying with the U.S. NDC would require the Trump Administration to follow through with Obama-era regulations to reduce greenhouse gas levels across the entire economy by 26 percent to 28 percent below 2005 levels by the year 2025.<sup>15</sup> Compliance would force significant changes in energy markets, particularly for electricity generation, causing prices to rise. Higher prices would adversely reverberate throughout the economy, resulting in an overall average shortfall of nearly 400,000 jobs and total income loss of more than \$20,000 for a family of four by the year 2035. Studies have shown that the U.S. would likely need even more aggressive GHG emissions cuts to meet its targets, which would escalate the projected cost even further.<sup>16</sup>

#### Necessary Conditions for a Possible, but Unadvised, Renegotiation of the Paris Agreement

President Trump has suggested a potential renegotiating of the Paris Agreement. Foreign leaders adamantly opposed the idea, urging Trump to instead rejoin the Agreement.<sup>17</sup> The potential details of a renegotiation remain unclear. Whether the Trump Administration would rescind and submit a new NDC also remains unclear. The Congressional Research Service notes:

There are no provisions in the PA [Paris Agreement] permitting a Party to rescind its NDC or express prohibitions. Possible withdrawal of the existing U.S. NDC raises two aspects of compliance with the PA: (1) the requirement that each Party must submit a NDC; and (2) provisions suggesting that each NDC must include a more ambitious pledge, a ratcheting mechanism for ambition in GHG emission reductions.<sup>18</sup>

Certainly, the Trump Administration should not renegotiate Paris based on any assumption that the accord is an effective climate mitigation tool. No amount of negotiating or expanding the pool of subsidies to different carbon-dioxide ( $CO_2$ )-free energy technologies will change the realities of current and future coal generation.

If for other strategic reasons the Administration does pursue a renegotiation, it should insist on the following criteria:

**Impose No Economic Harm.** The Trump Administration should insist that any contribution to the Paris climate accord not impose harm on the U.S. economy. Protecting the American economy from costly international climate agreements was once a bipartisan idea. The Byrd–Hagel Resolution, which passed unanimously with a 95–0 vote before the Kyoto Protocol, states that the U.S. should not enter into any treaty that "would result in serious harm to the economy of the United States."<sup>19</sup>

- 16. Jeffery B. Greenblatt and Max Wei, "Assessment of the Climate Commitments and Additional Mitigation Policies of the United States," *Nature*, September 26, 2016, https://www.nature.com/nclimate/journal/v6/n12/full/nclimate3125.html (accessed July 18, 2017).
- 17. Alexandra Zavis, "World Leaders Close Ranks on Climate Change: 'Paris Agreement Cannot Be Renegotiated," *The Los Angeles Times*, June 1, 2017, http://www.latimes.com/world/la-fg-trump-climate-reaction-20170601-story.html (accessed July 18, 2017).
- 18. Jane A. Leggett and Richard K. Lattanzio, "Climate Change: Frequently Asked Questions About the 2015 Paris Agreement," Congressional Research Service *Report for Congress* No. 44609, June 28, 2017, http://www.cq.com/pdf/crsreports-5136250 (accessed July 18, 2017).
- 19. Byrd-Hagel Resolution, S. Res. 98, 105th Cong., 1st Sess. (1997).

<sup>13.</sup> Bjorn Lomborg, "Impact of Climate Proposals," *Global Policy*, Vol. 7, No. 1 (February 2016), http://onlinelibrary.wiley.com/doi/10.1111/1758-5899.12295/epdf (accessed July 18, 2017).

<sup>14.</sup> Benjamin Zycher, "The Deeply Flawed Conservative Case for a Carbon Tax," American Enterprise Institute, March 7, 2017, http://www.aei.org/publication/the-deeply-flawed-conservative-case-for-a-carbon-taxconservatives-endorse-the-broken-windows-fallacyreject-evidence-and-rigor/ (accessed July 18, 2017).

United Nations Framework Convention on Climate Change, "Nationally Determined Contribution Registry: United States," http://www4.unfccc.int/ndcregistry/PublishedDocuments/United%20States%20of%20America%20First/U.S.A.%20First%20NDC%20 Submission.pdf (accessed July 18, 2017).

Following through with the Obama Administration's NDC would impose clear economic harm by driving energy prices higher. The climate regulations encompassing the U.S.'s NDC may not even achieve those targets, requiring additional regulations. Moreover, the Paris Agreement requires subsequent, more stringent targets, further increasing the cost of compliance. The U.S. should refuse to accede to any climate regulations that impose a net cost to American families and businesses.

Achieve Meaningful Results. Although proponents of the Paris Agreement praised the agreement for bringing the developing world and major emitters like India and China on board, the non-binding targets largely perpetuate the energy and climate status quo. Consequently, the projected averted warming is negligible. Moreover, given current and projected investments in coal-fired electricity generation, reaching the temperature targets outlined in the accord appears very unlikely. Even Secretary of State John Kerry admitted during the negotiations in December 2016, "If all the industrial nations went down to zero emissions-remember what I just said, all the industrial emissions went down to zero emissions-it wouldn't be enough, not when more than 65 percent of the world's carbon pollution comes from the developing world."20 Any agreement the U.S. commits to should achieve meaningful, measurable results for the climate.

**Submit to the Senate for Advice and Consent.** President Obama misused the existing United Nations Framework Convention on Climate Change (UNFCCC) framework, treating it as a vehicle to avoid the constitutional obligation (under Article II, Section 2) to seek advice and consent from the Senate.<sup>21</sup> President Trump should submit any renegotiation as a treaty and restore the legislative branch's constitutional role in foreign policy.

#### The United Nations Framework Convention on Climate Change

Rather than renegotiating the Paris Agreement, the Trump Administration should withdraw entirely

from the United Nations Framework Convention on Climate Change. Article 25 of the UNFCCC says that any party can withdraw from the convention three years after the framework has entered into force by submitting a written notice to the depositary. (The depositary is the secretary-general of the United Nations.) Doing this would withdraw the U.S. from any protocol to which it is a party (including Paris) and would enter into force one year after the depositary receives the notification of withdrawal.

Withdrawing from the UNFCCC would not preclude the U.S. from studying climate science, understanding the risks, and taking any necessary measures to adapt to a changing climate. Instead, pulling out of the UNFCCC is an appropriate action because the Paris Agreement and similar international approaches to mitigate warming are and will continue to be costly, ineffective, and unworkable. President Trump made good on his campaign promise by announcing U.S. withdrawal from the Paris Agreement. Now he should expedite that intention by withdrawing from the UNFCCC.

#### **The Green Climate Fund**

In the negotiations leading up to the Paris conference, participants developed the Green Climate Fund (GCF), which aims to mobilize \$100 billion in public and private financing by 2020.<sup>22</sup> The GCF, which has its own independent board, subsidizes renewable energy projects and pays for other climate adaptation and mitigation programs in developing nations. In fact, the promise of assistance through the GCF was instrumental in securing developing country support for the Paris Agreement. Many developing countries have emphasized the need for outside funds to meet the targets in their NDCs.

The GCF has several outstanding problems.

 Energy market distortion. The GCF distorts energy markets by allocating subsidies to GCF board-approved energy technologies allegedly for

<sup>20.</sup> Nicolas Loris, "John Kerry's Surprising Comments on International Regulations and Climate Change," The Daily Signal, December 11, 2015, http://dailysignal.com/2015/12/11/john-kerrys-surprising-comments-on-international-regulations-and-climate-change/.

<sup>21.</sup> Steven Groves, "The Paris Agreement Is a Treaty and Should Be Submitted to the Senate," Heritage Foundation *Backgrounder* No. 3103, March 16, 2016, http://www.heritage.org/environment/report/the-paris-agreement-treaty-and-should-be-submitted-the-senate.

United Nations Framework Convention on Climate Change, "Green Climate Fund (GCF)," http://unfccc.int/bodies/green\_climate\_fund\_board/body/6974.php (accessed July 18, 2017).

climate mitigation.<sup>23</sup> Private investors hedge their bets and coalesce around publicly supported sectors while other projects that do not receive government support lose out. Because capital is in limited supply, a dollar loaned to a governmentbacked project will not be available for another project. Furthermore, some of the world's largest banks signed Accreditation Master Agreements with the GCF in order to receive CGF funds to raise additional private capital.<sup>24</sup> Such major financiers are fully capable of using their own funds to invest if they believe projects are worth the risk.

Corruption and fraud. In the past, some of the top recipient nations of government-funded climate programs have been some of the most corrupt.<sup>25</sup> Concerns include the direct siphoning of funds, cronyism in bidding up the price of contracts or using sub-standard materials, and fraud in carbon offsets, where a country is paid not to cut down a forest but does it anyway.<sup>26</sup> The Paris Agreement attempted to increase accountability and transparency for GHG emissions reporting, implementation obligations, and the use of climate funds.<sup>27</sup> Because the GCF has plans to allocate funds to some of the world's more corrupt nations, fraud in the GCF will be a growing concern.<sup>28</sup>

#### What the U.S. Should Do with the Green Climate Fund Going Forward

President Obama pledged \$3 billion and dispersed \$1 billion to the GCF without authorization from Congress. However, the Trump Administration has no obligation to fulfill those pledges. Currently, the amount the U.S. has already dispersed is more than most other countries have pledged.<sup>29</sup> If every country fulfills its pledge, but the U.S. does not contribute any more funds, it will still be the fifth-largest contributor.<sup>30</sup>

Moving forward with the GCF, Congress and the Trump Administration should:

- **Prevent additional funding.** Large wealth transfers waste taxpayer money and funnel public dollars to politically favored energy technologies. In many instances, the use of funds diverts support from certain types of energy, such as nuclear power, that have zero carbon-dioxide emissions. The GCF also creates artificial pressure to shift away from cheaper, more reliable conventional fuels to more expensive intermittent technologies that cannot survive without public financing. Given the immediate, known risk of energy poverty, developing countries need to pursue energy projects that best meet their needs, renewable or otherwise. The Trump Administration should prohibit any new funding to the GCF, and Congress should pass legislation that specifically states no future administration can distribute U.S. taxpayer money to the fund without explicit authorization from Congress.
- Use board seats to advocate for adaptation projects. The U.S. has a seat on the GCF's 24-member board, at least until December 2018, and poten-

23. News release, "GCF Approves Eight Projects at its First Board Meeting in 2017," Green Climate Fund, April 6, 2017, http://www.greenclimate.fund/-/gcf-approves-eight-projects-at-its-first-board-meeting-in-20-1 (accessed July 18, 2017).

- Alex Pashley, "Campaigners Warn of Climate Finance Corruption Risk," Climate Change News, July 29, 2015, http://www.climatechangenews.com/2015/07/29/campaigners-warn-of-climate-finance-corruption-risk/ (accessed July 18, 2017).
- Transparency International, "Corruption Perceptions Index 2016," January 25, 2017, https://www.transparency.org/news/feature/corruption\_perceptions\_index\_2016 (accessed July 18, 2017).
- Sanjay Kumar, "Green Climate Fund Faces Slew of Criticism," *Nature*, November 20, 2015, https://www.nature.com/news/green-climate-fund-faces-slew-of-criticism-1.18815 (accessed July 18, 2017).
- 28. Comparing CGF recipients to Transparency International's Corruption Perceptions Index.
- The Green Climate Fund, "Pledge Tracker," June 20, 2017, https://www.greenclimate.fund/documents/20182/24868/Status\_of\_Pledges.pdf/ eef538d3-2987-4659-8c7c-5566ed6afd19 (accessed July 18, 2017).
- Jean Chemnick, "U.S. Could Stay on Green Climate Fund Board After All," ClimateWire, June 14, 2017, https://www.eenews.net/climatewire/2017/06/14/stories/1060055986 (accessed July 18, 2017).

<sup>24.</sup> News release, "HSBC Gains Green Climate Fund Accreditation," March 16, 2016, HSBC, http://www.hsbc.com/news-and-insight/mediaresources/media-releases/2016/hsbc-gains-green-climate-fund-accreditation (accessed July 18, 2017), and News release, "Deutsche Bank Signs Accreditation Master Agreement with Green Climate Fund," Deutsche Bank, May 23, 2017, https://www.db.com/newsroom\_ news/2017/medien/deutsche-bank-signs-master-agreement-with-un-green-climate-fund-en-11543.htm (accessed July 18, 2017).

tially longer. The board reserves one-quarter of the seats for the top six contributors.<sup>31</sup> Until other developed countries make additional pledges and payments, the U.S. will meet that criterion. The U.S. representative should advocate for spending on adaptation projects that address clearly defined threats and that protect against climate-related incidents, whether driven by natural or man-made emissions. The GCF currently allocates funds for climate mitigation like building windmills in South Africa,32 adaptation such as developing flood management plans and systems in Senegal,33 and some projects labeled as both adaptation and mitigation. Raising standards of living and improving prosperity rooted in the principles of economic freedom will better equip to protect against a changing climate. International funds should be spent on targeted, effective, adaptation projects. Climate-related deaths across the globe have fallen considerably as people have gained access to reliable power that protects against cold spells and heat waves, stronger building materials that protect against hurricanes and tornadoes, and innovative technologies that better prepare countries for climate-related events.34

#### Issues with Paris Agreement and UNFCCC Indicate Need for Improved Climate Science

Despite constant use of the words "settled science" and "consensus," climatologists disagree on a wide range of issues, including:

- The various causes of climate change,
- The rate at which the earth is warming,
- The exact effect of man-made emissions on warming,
- The most accurate climate data and temperature sets to use, and
- The accuracy of climate models and how to correct for their biases.<sup>35</sup>

Even the Intergovernmental Panel on Climate Change (IPCC) projects a wide range of uncertainty in its projected future warming. Yet, the IPCC has had a powerful role in defining the scientific and political conversation and conclusions about global warming, especially through its guide for policymakers. Its prematurely declared "consensus" that global warming is dangerous, accelerating, and instigated by  $CO_2$  has had a far-reaching influence, conflating scientific research with certain economic, energy, agricultural, and social policies. Consequently, many scientists and scientific institutions have become quasi-political lobbies.<sup>36</sup>

Climatologist and former chair of the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology Judith Curry recently testified on this issue before the House of Representatives, arguing,

31. The Green Climate Fund, "Board Members," http://www.greenclimate.fund/boardroom/board-members (accessed July 18, 2017), and Jean Chemnick, "U.S. Could Stay on Green Climate Fund Board After All."

- 32. The Green Climate Fund, "Projects and Programmes: Project FP029," June 14, 2017, http://www.greenclimate.fund/-/scf-capital-solutions (accessed July 18, 2017).
- The Green Climate Fund, "Projects and Programmes: Project FP021," July 4, 2017, http://www.greenclimate.fund/-/senegal-integrated-urban-flood-management-project (accessed July 18, 2017).
- 34. Patrick Michaels, "The One Statistic Climate Catastrophists Don't Want You to Know," Cato at Liberty, November 13, 2014, https://www.cato.org/blog/one-statistic-climate-catastrophists-dont-want-you-know (accessed July 18, 2017).
- Roy W. Spencer, "A Guide to Understanding Global Temperature Data," Texas Public Policy Foundation, July 2016, https://www.texaspolicy.com/library/doclib/FFP-Global-Temperature-booklet-July-2016-PDF.pdf (accessed July 19, 2017).
- 36. William Happer, "Data or Dogma? Promoting Open Inquiry in the Debate over the Magnitude of Human Impact on Earth's Climate," testimony before the Subcommittee on Space, Science, and Competitiveness, Committee on Commerce, Science, and Transportation, U.S. Senate, December 8, 2015, p. 8, http://www.commerce.senate.gov/public/\_cache/files/c8c53b68-253b-4234-a7cb-e4355a6edfa2/ FA9830F15064FED0A5B28BA737D9985D.dr.-william-happer-testimony.pdf (accessed March 7, 2016). See also Judith Curry, "Data or Dogma? Promoting Open Inquiry in the Debate over the Magnitude of Human Impact on Earth's Climate," testimony before the Subcommittee on Space, Science, and Competitiveness, Committee on Commerce, Science, and Transportation, U.S. Senate, December 8, 2015, p. 17, http://www.commerce.senate.gov/public/\_cache/files/f739759e-3f1b-447e-a1eb-d42bbe70454e/ FBA0C80EBB0D0B6545922F1D45D18C75.dr.-judith-curry-testimony.pdf (accessed July 19, 2017).

Cognitive biases in the context of an institutionalized consensus building process have arguably resulted in the consensus becoming increasingly confirmed in a self-reinforcing way. An extended group of scientists derive their confidence in the consensus in a second-hand manner from the institutional authority of the IPCC and the emphatic nature in which the consensus is portrayed. This "invisible hand" marginalizes skeptical perspectives and is operating to the substantial detriment of climate science, as well as biasing policies that are informed by climate science. Premature theories enforced by an explicit consensus building process harm scientific progress because of the questions that don't get asked and the investigations that aren't undertaken.37

Physicist Steven Koonin, former undersecretary of energy for science in the Obama Administration, proposed having a climate "Red Team/Blue Team." Inspired by the national security community's Red Team exercise to challenge assumptions, reduce risks and uncertainties, and correct for biases, a Red Team/ Blue Team would provide a public, transparent backand-forth on major issues surrounding climate science.

An anecdote from Koonin's time at the White House provides telling evidence for the usefulness of this exercise:

The public is largely unaware of the intense debates within climate science. At a recent national laboratory meeting, I observed more than 100 active government and university researchers challenge one another as they strove to separate human impacts from the climate's natural variability. At issue were not nuances but fundamental aspects of our understanding, such as the apparent—and unexpected—slowing of global sea level rise over the past two decades. Summaries of scientific assessments meant to inform decision makers, such as the United Nations' Summary for Policy Makers, largely fail to capture this vibrant and developing science.<sup>38</sup> Objective, transparent science should be an important tool to guide public policy. Independent efforts to more accurately determine the severity of climate change would better inform policymakers so that they can take any necessary actions that are cost-effective, verifiable, and effectual. Environmental Protection Agency Administrator Scott Pruitt recently announced his agency would be launching a Red Team to carry out a critique.<sup>39</sup> Carrying the Red Team approach over to the IPCC would be a useful step regardless of whether President Trump attempts to renegotiate Paris, because it would better inform Members of Congress on climate and energy policy.

#### Next Steps After Paris Agreement: An Opportunity to Demonstrate American Leadership

The Paris Agreement, which committed the U.S. to drastically reducing greenhouse gas emissions, was a terrible deal across the board. It would have hurt American taxpayers, American energy companies, and every single American who depends on affordable, reliable energy. It likely will hurt those countries that remain in the agreement. President Trump's announcement that the U.S. will withdraw from the Paris Agreement was a step in the right direction. The Trump Administration should follow through by withdrawing from the UNFCCC. Renegotiating the Paris Agreement is a non-starter because there would be no terms that would assuage the economic concerns of the deal or achieve any meaningful climate benefit. As the U.S. moves forward with the Green Climate Fund, delegates should make clear that the U.S. will not disperse new funds but will use its seat on the Fund's board to push for effective adaptation efforts.

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<sup>37.</sup> Curry, *Hearing on Climate Science: Assumptions, Policy Implications and the Scientific Method*, testimony to the Committee on Science, Space and Technology, U.S. House of Representatives.

Steven Koonin, "A 'Red Team' Exercise Would Strengthen Climate Science," The Wall Street Journal, April 20, 2017, https://www.wsj.com/articles/a-red-team-exercise-would-strengthen-climate-science-1492728579 (accessed July 18, 2017).

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