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Listen to the Experts and Act to Address Climate Change

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All benefit by averting the consequences of climate change through policies that support known solutions. At Greenleaf, we bring sound science to inform policy and practices that advance sustainable solutions to society's pressing environmental challenges. With urgency, citizens and business leaders must all communicate publicly what they express privately; that their individual interests and shared future depend upon mitigating climate change. Political action is needed to stave off future scenarios of great harm. We [must listen to the experts and act](#); including past presidential advisors Dr. Don Wuebblesⁱⁱ and Dr. Roy Wehrleⁱⁱⁱ who below express the urgency and an economically viable path forward.

The Urgency to Respond to the Changing Climate

Dr. Don Wuebbles, Lead US climate scientist and past presidential advisor

The science tells us that climate change is a very real and growing risk that all Americans, and all people around the world, should be concerned about. We need to stop acting as if climate change is a political issue. Rather, the real debate should be how we find the right solutions and make sure we leave a legacy of hope for the future to our children and grandchildren.

Every year, about 12,000 peer-reviewed scientific studies are published about our changing climate. So, it is not surprising that leading scientists are chosen to assess the state of the science. Whether it is an assessment by the U.S. National Academy of Sciences, the U.S. National Climate Assessments, or assessments led by the international Intergovernmental Panel on Climate Change, these analyses provide insights into what is happening to the climate, how this impacts society, and what pathways for mitigating these risk and/or adapting to them might be considered. These assessments all give us a clear message: Earth's climate is changing, it is changing extremely rapidly, and the evidence shows it is happening primarily because of human activities. Thousands of observational-based studies have documented the increasing surface, atmospheric, and oceanic temperatures on climate time scales. These observations also show impacts of a changing climate, e.g., that the vast majority of glaciers, including much of Greenland and Antarctica, are melting, snow cover is diminishing, sea ice is shrinking, sea levels are rising, oceans are acidifying, and heat waves and extreme precipitation are increasing in severity and frequency.

There is essentially no debate in the peer-reviewed scientific literature about the fact that the large changes occurring in the Earth's climate are occurring as a response to human activities. A recently published study by 11 U.S., U.K., and Canadian scientists used satellite observational datasets along with detection and attribution techniques, termed "fingerprinting", to show that the clear connection between climate change and human activities is over 99.999% certain (in other words, the likelihood that changes in climate are not due to human activities is less than one in a million).

Natural factors such as changes in the energy output of the Sun have always affected our climate but, over the last century, human activities have become the dominant influence in producing the climatic changes observed. Evidence clearly points to these changes as being primarily due to the burning of fossil fuels and, to a lesser extent, to land use change, e.g., from deforestation. Paleoclimatic observations show that the climate is changing about ten times more rapidly than natural changes in climate since the end of the last ice age. As a result, many national and world leaders have concluded climate change, often referred to as global warming in the media, has become one of the most important issues facing humanity.

All parts of the United States are impacted. Some climate-related impacts, such as increasing health risks from extreme heat, are widespread across the United States. Others represent more localized risks, such as effects on agricultural production in the Midwest, infrastructure damage from thawing of permafrost in Alaska, or threats to coral reef ecosystems from warmer and more acidic seas in the Caribbean, Hawaiian and Pacific Islands. Risks vary according to a community's exposure and ability to respond to and recover from adverse weather and climate-related events such as severe storms or wildfires. Many places are subject to multiple climate-related impacts, such as extreme rainfall combined with coastal flooding, or drought coupled with extreme heat, wildfire, and flooding. The observed impacts reveal vulnerabilities in these interconnected systems that are expected to be exacerbated as climate-related risks intensify.

**Economic Policy Recommendation to Address Climate Change:
The National Energy Transition Plan for America & The Employment Study Addendum**

Roy Wehrle, Senior Economist and past presidential advisor

The [National Energy Transition Plan \(NETP\) and its Employment Study Addendum](#) are based upon research into climate policies around the world. They describe effective U.S. policy that will enhance economic development and employment, while reducing carbon emissions 50% by 2030. This suggested policy uses a market-based approach based on a carbon tax on fossil fuels and payment of dividends based on carbon tax revenue raised to all citizens to ensure a fair transition. This approach avoids putting a disproportionate burden on low-income families. All carbon tax revenue raised would be returned in equal shares to all citizens so that those with lesser incomes come out ahead (i.e. they consume less so they bear less carbon tax, retaining more of their dividend). The Employment Study Addendum demonstrates this approach will increase GDP and employment while slashing carbon emissions. This should be combined with inclusive policies to support workers during this transition phase.

Two steps are indispensable to prevent climate change devastation:

- Act now and pass a comprehensive national climate policy by 2021.
- Employ a market-based approach that unleashes American grit and ingenuity to reduce carbon emissions (it was not by chance that the moon landing was launched in America).

Our country has one chance to get this right by engaging across business, government, and citizens to mitigate climate change. A market-based approach can achieve this task. By passing a carbon tax and dividend bill, the U.S. will stimulate the talents of inventors, innovators, scientists, corporate executives, labor, and customers. We cannot afford to waste time and urge you to find common cause in addressing this shared crisis, and we look forward to working with you toward effective and fair solutions.

Please contact [Francine Van den Brandeler](#) to facilitate a conversation on the report with the authors.

ⁱ John Andersen was previously International Director of Jones Lang LaSalle; Great Lakes Director and Trustee of The Nature Conservancy; and Trustee of Heartland Alliance for Human Needs and Human Rights.

ⁱⁱ Dr. Wuebbles is Professor of Atmospheric Science at the University of Illinois. He was Assistant Director with the Office of Science and Technology Policy at the Executive Office of the President (2015-2017). He is an expert in atmospheric physics and chemistry and he co-led Volume I of the Fourth U.S. National Climate Assessment.

ⁱⁱⁱ Dr. Wehrle is Professor Emeritus at the University of Illinois-Springfield. He was a Senior Economist at Brookings Institution, Senior Economist at the Council of Economic Advisors to President Kennedy and Economic Counsellor in the Department of State.