





September 26, 2016

Dr. John Holdren
Assistant to the President for Science and Technology
Director, Office of Science and Technology Policy
Eisenhower Executive Office Building
1650 Pennsylvania Avenue
Washington, DC 20504

Dear Dr. Holdren:

On behalf of our organizations, we thank you for your leadership to increase understanding of, and action on, the impacts and implications of climate change, particularly in the Arctic. Given the dramatic changes already underway in this region, and the ongoing and potential future consequences of these changes on people and natural systems in the Arctic and around the world, we applaud your convening of the first Arctic Science Ministerial summit this week in Washington.

This Ministerial gathering is a tremendous opportunity to align the world's leading scientific institutions and capacity around an Arctic science agenda to inform and shape policy actions in and beyond the Arctic. Such a concerted agenda is both important and urgent in our view, because:

- The Arctic is warming faster than the rest of the globe.
- Additional warming is locked in; the Arctic will continue to experience substantial loss of land and sea ice and thawing of permafrost for the next 20-30 years notwithstanding progress implementing the Paris Agreement on climate change.
- Arctic indigenous communities are facing dramatic impacts from climate change to their village locations, food security and culture.
- These changes are causing major physical, biological and societal impacts now, which will worsen in the short term and could become disastrous in the long term.

- Release of greenhouse gases from thawing Arctic permafrost could significantly amplify global climate change, making it difficult or impossible to meet global climate policy goals like limiting warming to 1.5 or 2ºC.

Therefore, we submit that the Arctic science leaders gathered this week must increase cooperative efforts to understand and curb Arctic climate change. Specifically, we support

(1) Increased science investment in monitoring and projecting the future behavior of critical Arctic systems (sea ice, permafrost, ice sheets);

(2) An ongoing effort, based on this evolving science, to identify GHG emissions targets and other high-level policy outcomes that will avoid unmanageable climate change;

(3) Accelerated research into CO2 removal technologies, to allow for informed consideration of these options should emissions reductions prove inadequate; and

(4) Establishment of a process to feed this and other information on Arctic climate change into future international and national climate goal setting.

In its September 15th report "Avoiding a Full Arctic Meltdown"[1] the Center for American Progress (CAP) recommends that science ministers create a "*high-level international panel of leading scientists and policymakers tasked with helping world leaders avert Arctic and other warming-related tipping points. This panel would lead an urgent initiative to identify the timing, triggers, and consequences of Arctic and global thresholds that the climate cannot cross without having serious implications for people across the planet. The panel would also identify monitoring gaps that must be filled to better understand Arctic warming thresholds. Lastly, it would strive to recommend to world leaders, the amount of Arctic permafrost, sea ice, glaciers, ice sheets, and other conditions that must be preserved to avoid unstoppable and dire effects."*

This panel would augment the important efforts of the Intergovernmental Panel on Climate Change by tying closely and explicitly to the needs and timing of the UNFCCC, including the 2018 "facilitative dialogue" and periodic global stock-take of collective efforts to meet the Paris Agreement goals. The panel would also support the renewal of nationally-determined contributions, or national goals. In addition, the panel would have the flexibility to respond to emerging issues in either the science or policy arenas. Such a panel could be hosted within the Arctic Council and in any case would rely on important information generated from key Arctic Council working groups.

Our recommendations on investments in understanding critical Arctic systems may be regarded as an Arctic-specific version of the "early warning system" recommended by the National Academy of Sciences in its 2013 report on "Abrupt Impacts of Climate Change: Anticipating Surprises[2]."

Additionally, we urge you as science leaders to take the opportunity of this Ministerial to send a clear message to global policy makers that rapid and unchecked Arctic climate change will have dire consequences. Science ministers must also urge world leaders to ***accelerate*** implementation of the Paris Agreement, ramp up decarbonization efforts and take additional actions to prevent further Arctic degradation from driving increased warming with effects that threaten the health, security, and prosperity of people around the globe.

---

[1] https://www.americanprogress.org/issues/green/report/2016/09/15/144269/avoiding-a-full-arctic-meltdown/
[2] https://www.nap.edu/catalog/18373/abrupt-impacts-of-climate-change-anticipating-surprises

Thank you for considering this proposal and for your leadership.

Sincerely,

Brad Ack
Senior Vice President,
Oceans, WWF US

Philip B. Duffy
President and Executive
Director, Woods Hole
Research Center

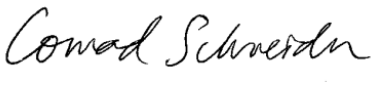
Brenda Ekwerzel, Ph.D.
Director of Climate Science,
Climate and Energy
Program, Union of
Concerned Scientists

David Goldston
Director, Government
Affairs, Natural Resources
Defense Council

Carmel Martin
Executive Vice President
for Policy, Center for
American Progress

Pam Pearson
Executive Director,
International Cryosphere
Climate Initiative

Rafe Pomerance
Chair, Arctic 21



Conrad Schneider
Advocacy Director, Clean Air
Task Force

Janis Searles Jones
President, The Ocean
Conservancy

Cc: Brian Deese, Assistant to the President and Senior Advisor
Dr. Kathryn D. Sullivan, Under Secretary of Commerce for Oceans & Atmosphere and NOAA Administrator
Ambassador Mark Brzezinski, Executive Director of the Arctic Executive Steering Committee
Fran Ulmer, Chair of the US Arctic Research Commission