



# 6 MAY 2016

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### Assessment in a changing climate: IPCC AR5 and beyond

Climate change assessment by the IPCC and many others has definitively taken stock of the climate problem: unequivocal warming, widespread observed impacts, and serious risks from continued high emissions. Decades on, assessment faces new demands in an emerging era of climate responses, especially given the mismatches between aspirations and the current status of action. In this presentation, I will introduce and critically evaluate approaches adopted in the latest report by the IPCC. Case studies will include (1) multi-criteria assessment of climate change risks, (2) communication of uncertainties in assessment findings, and (3) science-policy interactions during governmental approval of IPCC policymaker summaries. Throughout, I will reflect on lessons for future assessment to advance climate solutions. In particular, I will consider next directions for integrating diverse evidence, applying expert judgment, exploring possible futures, and communicating the results. These directions can improve assessment of risks with increasing warming, of mitigation and adaptation effectiveness, and of synergies and trade-offs across the diversity of societal objectives.

### Bio

Katharine Mach is a Senior Research Associate at Carnegie Science's Department of Global Ecology. Her research is focused on new possibilities for climate assessment to empower decisions and actions in a changing climate. From 2010 to 2015, she co-directed science for Working Group II of the Intergovernmental Panel on Climate Change, coordinating work on the IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (2012) and the IPCC Fifth Assessment Report on Impacts, Adaptation, and Vulnerability (2014). Mach received her PhD in Biological Sciences from Stanford and AB in Biology from Harvard.

Center for Climate  
and Energy  
Decision Making  
Seminars



6 May 2016  
12:00pm EDT

Wean Hall 3701  
Carnegie Mellon University

Coffee and Refreshments will be served at 10:15am. Seminar is presented under the auspices of CEDM and the department of Engineering and Public Policy.

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