

CGD SEMINAR



DATE: Monday, 18 March 2019

TIME: 11 am – 12 pm

LOCATION: NCAR, 1850 Table Mesa Drive
Mesa Lab, Main Seminar Room

TITLE: Understanding the Role of Decadal Climate
Prediction in Climate Risk Management

SPEAKER: James Done, NCAR

ABSTRACT:

Climate risk managers across multiple sectors increasingly require predictive climate information for effective planning and adaptation. While risk managers can be sophisticated consumers of seasonal outlooks and climate change projections, they are generally less familiar with decadal climate predictions. A number of key risk management decisions stand to benefit from predictive information on decadal scales. This presentation will outline two use cases, exploring the roles of decadal climate prediction for water resource management and tropical cyclone insurance.

Recent interviews with water managers in California identified vulnerabilities of water supply and flood management planning decisions on decadal timescales. Example high-impact climate events include extremes in the bivariate distribution of seasonal temperature and precipitation, extreme wet winters following extreme dry winters, and multi-year multi-watershed dry conditions. Tropical cyclone risk managers are interested in the prospect of near-term views of risk provided by decadal predictions. Key decadal changes of interest are the regional number of cyclones and geographic shifts in preferred cyclone locations. For both use cases, these climate events can push conditions beyond normal operational space, exposing operational and planning limits.

Do we understand the physical processes driving these high-impact events on decadal scales? What is our predictive capacity for such events? This presentation will show analysis of the Community Earth System Model Decadal Prediction Large Ensemble (CESM_DPLE) conducted in collaboration with climate risk managers to establish an understanding of the role of decadal climate prediction in climate risk management.

Live webcast: <http://ucarconnect.ucar.edu/live>

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