



Center for **Climate Adaptation Science and Solutions**

New UA Center to Offer Solutions for Climate Change Impacts and Adaptation

By **Stephanie Doster, Institute of the Environment**

A new center hosted by the University of Arizona's Institute of the Environment will link science with the needs of decision makers to offer innovative and practical management options aimed at protecting lives, property and the natural environment from the impacts of climate extremes and climate change worldwide.

Launching Jan. 17 with a panel discussion and public lecture, the Center for Climate Adaptation Science and Solutions, or CCASS, will knit together and build on existing adaptation projects, resources and expertise across the UA campus to collectively provide solutions for some of the toughest challenges related to planning for and acting on climate change and extremes such as drought, heat waves, floods, fires and severe storms.

"CCASS will focus on generating new, use-inspired adaptation information and on ensuring that the latest scientific information is accessible and useful to a range of decision makers," said Katharine Jacobs, director of the new center and a professor in the UA's department of soil, water and environmental science, or SWES. "There is a lot of scientific and technical capacity at the University of Arizona; this center will help connect that capacity to maximize economic and environmental opportunities and manage risk across the Southwest, the United States and internationally."

Jacobs is a nationally recognized water, climate, and adaptation expert who recently returned to the UA from Washington, DC, where she spent the past four years as assistant director in the Office of Science and Technology Policy in the White House. There she was the lead advisor on climate adaptation and water issues and director of the Third National Climate Assessment, or NCA, which is expected to be published this spring.

The NCA is a federally mandated status report on the latest climate change science and projections, with assessments of climate impacts for regions and sectors across the U.S. It is designed to help communities around the nation create a more sustainable and environmentally sound plan for the future. President Obama's senior science advisor, John Holdren, recently noted that this NCA report is "the most comprehensive and scientifically rigorous assessment of climate change impacts in the United States ever generated."

Before her appointment in Washington, Jacobs was a faculty member in SWES and director of the Arizona Water Institute. Prior to that she worked at the Arizona Department of Water Resources for 23 years, including 14 years as the director of the Tucson office.

"We are very fortunate to have Kathy Jacobs return to lead CCASS with her distinguished record as a decision maker, researcher and policy advisor at state and federal levels," said Diana Liverman, co-director of the Institute of the Environment and Regents' Professor of Geography and Development. "It is exciting to have her considerable energy, expertise and contacts to consolidate the UA's growing reputation as a top center for climate adaptation research and outreach."

The center will address local, regional, national and global adaptation issues, leveraging the UA's decades of research and outreach related to living within the constraints of arid and drought-prone environments and understanding how human societies have adapted to climate stresses in different regions of the world.

The center will bring together faculty from different fields to connect research to real-world issues faced by land-use planners; forest, wildfire, and water managers; public agencies; businesses; utilities; farmers, non-government bodies; and private citizens.

“Although the traditional view of adaptation is of gradual and well-managed responses to trends over time, the reality is that extreme events and step changes—sudden changes in the climate and environmental conditions—are the real challenges for society,” Jacobs said. “This area has been insufficiently addressed throughout the world, even in the face of extreme weather and sea-level rise that has already caused whole communities to uproot and move. One focus for the center will be preparedness for extreme events and rapid changes in environmental conditions.”

Center to Launch with Two Events

The two kick-off events planned for Jan. 17 include a panel discussion on Living in Our Future Climate: Adapting to Climate Change, at 12 pm in the Student Union Memorial Center, Kiva Room, and a public lecture by Mark Howden, an international expert on climate adaptation from Australia and the adaptation center’s first Distinguished Visiting Fellow, at 3:30 pm in the Center for Creative Photography.

In the panel discussion, four speakers will briefly discuss different facets of climate adaptation: Liverman will speak about the UA’s role in adaptation research and policy; Jacobs will introduce the new center and its role in supporting decisions in a national and international context; Howden, chief research scientist with CSIRO Ecosystem Sciences in Canberra, Australia, will talk about the center in the context of his own adaptation experience in Australia; and Jeff Silvertooth, associate dean of UA Cooperative Extension, will discuss the expanding role of Extension at the UA in adaptation.

During his public talk, Climate Adaptation in Australia: Successes, Failures and Some Lessons Learned, Howden will focus on private and public sector roles in managing the risks of a variable and changing climate. Australia has developed some innovative climate adaptation approaches, having experienced wild fluctuations in climate conditions over the last two decades.

Howden has worked with government and industry policy groups and decision makers in Australia, the United States, and internationally to develop strategic approaches to managing the impacts of climate variability and change in a range of sectors. He also has worked on sustainable agriculture and food security issues. He was a major contributor to the Intergovernmental Panel on Climate Change (IPCC) Second, Third, and Fourth Assessment reports; developed the national and international greenhouse gas inventories for Australia’s agricultural sector; and has assessed sustainable methods of reducing greenhouse emissions from agriculture. A reception in the atrium of the College of Architecture, Planning and Landscape Architecture building will follow his lecture, with remarks provided by UA Provost Andrew Comrie.

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THE UA’S SCHOOL OF GEOGRAPHY AND DEVELOPMENT AND
THE INSTITUTE OF THE ENVIRONMENT ARE SPONSORING HOWDEN’S TALK.

