

Agriculture in a Changing Climate across Scales: Broadening Participation in Research and Decision-Making

USDA/NCAR Workshop, August 25-28, 2014
National Center for Atmospheric Research, Boulder Colorado
Foothills Lab 2 Room 1024

Workshop Agenda

Monday, August 25 2014

Climate Change and Agriculture around the World

Moderator: Lawrence Buja, NCAR

8:30	Shuttle buses depart from the Millennium Hotel for NCAR
9:00 – 9:20	Welcome - Lawrence Buja, NCAR and Margaret Walsh, USDA Climate Change Program Office
9:20 -9:30	Workshop goals, agenda and logistics - Olga Wilhelmi, NCAR
9:30 – 10:00	Participants introductions
10:00 – 10:45	20 th and 21 st Century Climate Change: Climate Modeling, Societal Impacts, and Environmental Justice - Warren Washington, NCAR
10:45 – 11:15	Tea/Coffee break
11:15 -12:00	CROP modeling in the Community Land Model – Samuel Levis, NCAR
12:00 – 1:00	Lunch on your own (Foothills lab cafeteria)
1:00 – 3:00	Introduction to GIS; Exploring global climate impacts on agriculture in ArcGIS – Jennifer Boehnert, Olga Wilhelmi, Kevin Sampson, NCAR
3:00- 3:30	Tea/Coffee break
3:30 – 4:15	Climate Change and Food Security - An Overview - Margaret Walsh, USDA Climate Change Program Office
4:15 – 4:45	Climate trends and global crop yields – Claudia Tebaldi, NCAR
4:45 – 5:15	Panel discussion: Why climate change matters? - Stanley G. Edwin, University of Alaska-Fairbanks, Sonali McDermit, NASA GISS, Saul Daniel

	Ddumba, Michigan State University. Panel Moderator: Olga Wilhelmi, NCAR
5:15	Bus leaves for the Millennium Hotel
6:30	Working dinner at The Boulder Dushanbe Tea House (http://www.boulderteahouse.com/). Small group discussions about potential projects that integrate climate, agriculture and GIS.

Tuesday, August 26 2014
Climate Change and Agriculture in the United States
Moderator: Margaret Walsh, USDA

8:30	Shuttle buses depart from the Millennium Hotel for NCAR
9:00 – 9:45	Climate Science for Agriculture: Challenges and Opportunities of using Climate Model Projections – Caspar Ammann, NCAR
9:45 – 10:30	Climate impacts on ranching, farming and natural resources in the Northern Plains – Justin Derner, USDA Northern Plains Regional Climate Hub
10:30 – 11:00	Tea/Coffee break
11:00 -11:30	Climate Change Adaptation and the USDA Mission – Carolyn Olson, USDA-OCE-Climate Change Program Office
11:30 – 12:00	Panel discussion: Climate adaptation efforts and needs in regions and communities - Lorine Giangola, University of Colorado, Maged Nosshi, University of Kansas, Kripa Akila Jagannathan, University of California – Berkeley. Panel moderator: Lawrence Buja, NCAR
12:00 – 1:00	Lunch on your own (Foothills lab cafeteria)
1:00 – 3:00	Integrating climate model output in ArcGIS with time-series analysis – Jennifer Boehnert, Olga Wilhelmi, Kevin Sampson, NCAR
3:00- 3:30	Tea/Coffee break
3:30 – 4:15	Drought Risk and Adaptation in the Interior (DRAI) – A social-ecological systems approach to understanding drought impacts, vulnerabilities, and responses – Shannon McNeeley, North Central Climate Science Center, Colorado State University

4:15 – 5:00	Opportunities for collaboration – Lawrence Buja, NCAR and Margaret Walsh, USDA
5:00 - 5:15	Group photo outside Foothills Lab
5:15	Shuttle buses depart NCAR for the Millennium Hotel

Wednesday, August 27 2014
Weather and climate forecast and decision-making
Moderator: Olga Wilhelmi, NCAR

8:30	Shuttle buses depart from the Millennium Hotel for NCAR
9:00 -9:45	Agricultural Decision Making under Climate Uncertainty – William Travis, Geography Department, University of Colorado, Boulder
9:45 – 10:30	Seasonal Climate Forecasts in the U.S. - Past, Present, and Future – Klaus Wolter, University of Colorado- CIRES, NOAA-ESRL
10:30 – 11:00	Tea/Coffee Break
11:00 – 11:30	Leveraging Data for Sustainable and Resilient Agriculture and Forestry – Tawny Mata, AAAS Fellow / USDA
11:30 – 12:00	Panel discussion: Needs for decision support tools and climate products – Tapan Pathak, University of Nebraska-Lincoln, Yang Song, University of Illinois, Urbana-Champaign, Gericke Cook, USDA. Panel moderator: Margaret Walsh, USDA
12:00 – 1:00	Lunch on your own (Foothills lab cafeteria)
1:00 – 3:00	Working with Numerical Weather Prediction (NWP) output in ArcGIS to analyze the impact from the September 2013, Boulder flood – Jennifer Boehnert, Olga Wilhelmi and Kevin Sampson, NCAR
3:00- 3:30	Tea/Coffee Break
3:30 – 4:30	Regional Climate Model Development For Agricultural Applications: A Land Surface Modeling Perspective – Michael Barlage, NCAR
4:30 – 5:00	Internship and research opportunities at UCAR – Rebecca Haacker-Santos, SOARS

5:15	Shuttle buses depart NCAR for the Millennium Hotel
evening	Optional activity: Boulder Farmers Market (on your own)

Thursday, August 28 2014

Weather Forecasting, precision agriculture and sustainable agriculture

Moderator: Olga Wilhelmi, NCAR

8:30	Shuttle buses depart from the Millennium Hotel for NCAR
9:00 -9:45	Advanced weather prediction capabilities and precision agriculture - William Mahoney, NCAR
9:45 – 1:00	Field trip to two local farms and working lunch
1:00 - 2:45	Communicating science with maps – Jennifer Boehnert, Olga Wilhelmi and Kevin Sampson, NCAR
2:45 - 3:30	Sustainable agriculture – Peter Backlund, Colorado State University
3:30-4:15	Tea/coffee and a group discussion about next steps – Lawrence Buja, NCAR, Margaret Walsh, USDA and Olga Wilhelmi, NCAR
4:15 – 4:30	Workshop evaluation and adjourn – Olga Wilhelmi, NCAR
4:30	Shuttle buses depart NCAR for the Millennium Hotel