# CESM Societal Dimensions Working Group Meeting 4 – 5 March 2015

# National Center for Atmospheric Research – Boulder, Colorado Mesa Lab – Main Seminar Room

>>>> Webcast: www.fin.ucar.edu/it/mms/ml-live.htm

### WEDNESDAY, 4 March

1:10	SDWG Meeting Start - Joint SWDG/LMWG session	
1:30	Attribution of the biogeochemical and biogeophysical impacts of CMIP5	Peter Lawrence, NCAR
1:50	The effects of land unit boundaries on GCAM land use and cover	Alan Di Vittorio, LBNL
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2:10 Exploring the climatic impacts of fulfilling the global biofuel potential Candida Dewes, U. Virginia 2:30 Using landscape typologies to model socioecological systems Anthony King, ORNL

large river systems: An Earth system modeling perspective

Joint Land Model and Societal Dimensions Working Groups

3:20 Impacts of climate and human-induced changes on stream temperature in Hong-Yi Li, PNNL

3:40 The effects of groundwater and return flow on future water deficits in the U.S.: M. Hejazi, JGCRI / PNNL

A one-way coupling of GCAM and CLM

#### CMIP6 Plans

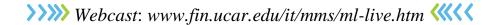
Break

2:50

4:00ScenarioMIPBrian O'Neill, NCAR4:20LUMIPDave Lawrence, NCAR4:40AerChemMIPJean François Lamarque, NCAR

5:00 Discussion: Relevance of CMIP6 to SDWG/LMWG

5:30 Working Group Information Exchange (LMWG and SDWG) – Damon Room



## THURSDAY, 5 March

### **SDWG Science Session I**

8:30 Coffee

#### SDWG Computing Session

Overview of previous and current computing projects

Lawrence Buja, NCAR

#### Report on previous computing projects

- 9:20 Peter Lawrence, NCAR
- Martyn Clark, NCAR 9:35
- 9:50 Additional project?
- 10:05 Break

#### Overview of current computing projects

- 10:20 1. THESIS Development
- 10:25 2. IESM: Historical land use uncertainty
- 10:30 3. Hydrologic impacts uncertainty and downscaling
- 10:35 4. Output processing tool
- 10:40 5. Carbon cycle disturbance and mitigation
- 10:45 6. Ensemble for hydrologic cycle
- 10:50 7. Overshoot / geoengineering
- 10:55 8. ScenarioMIP / LUMIP guidance
- 11:00 9. VHR reference data
- 11:05 10. Discussion
- 11:25 Lunch (on your own)

### **SDWG Science Session II**

#### **BRACE** Project Session

1:00	Introduction: The Benefits of Reduced Anthropogenic Climate changE (BRACE)	Brian O'Neill, NCAR
1:10	A new large CESM initial condition ensemble to assess avoided impacts in a	Ben Sanderson, NCAR
	climate mitigation scenario	
1:30	Avoided extreme heat-related health impacts in U.S. cities	Brooke Anderson, CSU
1:50	Avoided economic impacts of climate change on agriculture	Xiaolin Ren, NCAR
2:10	Estimating avoided tropical cyclone impacts with an index of damage potential	James Done, NCAR
2:30	Break	

CESM applications				
3:00	High-resolution CESM simulations of the Lake Tanganyika watershed	Anton Seimon, Appal. St. University		
3:20	Model projection of 21 <sup>st</sup> century heat extremes depend on scenarios of GHG and air pollution	Yangyang Xu, NCAR		
3:40	Terrestrial feedbacks influence land use, crop price, emissions, and carbon	Alan DiVittorio, LBNL		
4:00	New time-domain diagnostics and verification tools for climate models	Caspar Ammann, NCAR		
4:20	SDWG policy for development of CESM linkage code	Brian O'Neill, NCAR		
4:40	Discussion			
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- 5:00 Wrap-up discussion
- Adjourn 5:10