

SNOWMASS 2016 -- Week 2

Tentative AGENDA

Capabilities and Gaps in Integrated Human-Earth System Modeling at the Energy-Water-Land Nexus

July 25 to July 29, 2016 – Snowmass, CO.

(Draft as of 7-24-16)

Planning Committee: Kate Calvin, Karen Fisher-Vanden,
Richard Moss, John Weyant

Saturday and Sunday, July 23 & 24, 2016

Informal Discussions with Planning Committee and Program Session Presenters and
Week I and II Attendees

Sunday, July 24, 2016

6:30 pm Registration and Informal Family Buffet at the Gatehouse, TOV

*All events will be at TOV Gatehouse unless listed

MONDAY, JULY 25, 2016

Introduction

Chair: John Weyant (Stanford University), Notetaker: Karen Fisher-Vanden

7:30-8:30	Breakfast & Informal Discussion	
8:30-8:40	Welcome	John Weyant (Stanford University)
8:40-9:00	Introduction and Meeting Goals	Kate Calvin (Joint Global Change Research Institute/ Pacific Northwest National Laboratory, JGCRI/PNNL),
9:00-9:10	Drivers, Opportunities, and Science Program C	Gary Geernaert, (Department of Energy)
9:10-9:20	Scientific Drivers, Needs, and Trends	Bob Vallario (Department of Energy)
9:20-9:30	Earth System Modeling Perspectives and Potentials	Dorothy Koch (Department of Energy)
9-30-9:45	OPEN DISCUSSION	

Impacts, Adaptation, and Vulnerability

Background Chair: Kate Calvin (JGCRI/PNNL), Notetaker: Leon Clarke

9:45-10:10	IAV Science Questions that Require Coupling and/or Inputs from IAM/ESM	John Weyant (Stanford University)
10:10-10:35	Designing a model framework from the ground up: linking IAV, IAM, and ESM	Richard Moss (Joint Global Change Research Institute/ Pacific Northwest National Laboratory, JGCRI/PNNL), Kate Calvin (JGCRI/PNNL)
10:35-11:00	OPEN DISCUSSION	
11:00-11:15	MORNING BREAK	

Update from Existing Projects

Chair: Richard Moss (JGCRI/PNNL), Notetaker: Ian Sue Wing

11:15-11:35	Comparing Methods and Improving the Emperical Foundations of Agricultural Impacts—an Inter-method Comparison	Karen Fisher-Vanden (PSU), Juan Carlos Ciscar (European Commission, The Institute for Prospective Technological Studies)
11:35-11:55	AgMIP	Alex Ruane (National Aeronautics and Space Administration, NASA)
11:55-12:15	ISI-MIP	Franziska Piontek (Potsdam Institute for Climate Impact Research, PIK)
12:15-12:45	OPEN DISCUSSION	
12:45-1:45	LUNCH	

Coupling for IAV

Chair: Steve Rose (EPRI), Notetaker: Richard Moss

1:45-2:05	Energy	Mort Webster (Pennsylvania State University)
2:05-2:25	Water	Richard Lammers (University of New Hampshire)
2:25-2:45	Agriculture and Land	Alex Ruane (NASA)
2:45-3:15	OPEN DISCUSSION	
3:15-3:30	AFTERNOON BREAK	

Cross-Sectoral Challenges

Chair: Karen Fisher-Vanden (PSU), Notetaker: Mohamad Hejazi

3:30-3:50	Direct Coupling of IAV Models	Ian Kraucunas (Pacific Northwest National Laboratory, PNNL)
3:50-4:10	IAM incorporating IAV	Ian Sue Wing (Boston University)
4:10-4:30	IAM as a coordinating mechanism to integrate impacts across sectors and regions	Kate Calvin (JGCRI/PNNL)
4:30-5:00	OPEN DISCUSSION	
6:30	WEEK 2 OPENING RECEPTION & DINNER	

TUESDAY, JULY 26, 2016

Integrated Assessment Models

Background

Chair: Keywan Riahi (IIASA), Notetaker: John Weyant

7:30-8:15	Breakfast & Informal Discussion	
8:15-8:30	Scientific Drivers, Needs, and Trends	Miles Perry for Tom van Ierland (European Commission)
8:30-8:55	Information Needs and Community Response	Leon Clarke (Joint Global Change Research Institute/ Pacific Northwest National Laboratory, JGCRI/PNNL)
8:55-9:20	IAM Science Questions that Require Coupling and/or Inputs from IAV/ESM	Detlef van Vuuren (Netherlands Environmental Assessment Agency PBL)
9:20-9:45	OPEN DISCUSSION	

Update from Existing Projects

Chair: Jae Edmonds (JGCRI/PNNL); Notetaker: Mort Webster

9:45-10:00	AGCI Remote Sensing for IAMs	Ghassem Asrar (Joint Global Change Research Institute/ Pacific Northwest National
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		Laboratory, JGCRI/PNNL)
10:00-10:15	The IIASA World in 2050 Initiative	Nebojsa Nakicenovic (International Institute for Applied Systems Analysis, IIASA)
10:15-10:30	Update from CD-Links	Valentina Bosetti (Bocconi University)
10:30-11:00	MORNING BREAK	

Coupling for IAM

Chair: Leon Clarke (JGCRI/PNNL), Notetaker: Ian Kraucunas

11:00-11:20	Energy	Keywan Riahi (International Institute for Applied Systems Analysis, IIASA)
11:20-11:40	Water	Mohamad Hejazi (Joint Global Change Research Institute/ Pacific Northwest National Laboratory, JGCRI/ PNNL)
11:40-12:00	Land	Erwan Monier for John Reilly (Massachusetts Institute of Technology)
12:00-12:30	OPEN DISCUSSION	
12:30-1:30	LUNCH	

Cross-Sectoral Model Coupling Challenges

Chair: Rob Nicholas (PSU), Notetaker: Andy Jones

1:30-1:50	Resolution challenges in IPETS/CLM	Brian O'Neill (National Center for Atmospheric Research, NCAR)
1:50-2:10	Resolution challenges in the AIM model	Kiyoshi Takahashi (National Institute for Environmental Studies, NIES)
2:10-2:30	Resolution challenges in CIRA	Jim McFarland (U.S. Environmental Protection Agency)
2:30-3:00	OPEN DISCUSSION	
3:00-3:30	AFTERNOON BREAK	

Perspectives on Uncertainty

Chair: Erwan Monier (MIT), Notetaker: Jim McFarland

3:30-3:50	Modeling uncertainty in IAV	Rob Lempert (RAND)
3:50-4:10	Modeling uncertainty in IAM	Massimo Tavoni (Fondazione Eni Enrico Mattei, FEEM)

4:10-4:30	Modeling uncertainty in ESM	Klaus Keller (Pennsylvania State University)
4:30-5:00	OPEN DISCUSSION	
5:00	INFORMAL DISCUSSIONS (Attendees are on their own for dinner)	

WEDNESDAY, JULY 27, 2016

Earth System Models

Background

Chair: Ghassem Asrar (JGCRI/PNNL), Notetaker: Rob Nicholas

7:30-8:30	Breakfast & Informal Discussion	
8:30-8:55	ESM Science Questions that Require Coupling and/or Inputs from IAM/IAV	Jean-Francois Lamarque (National Center for Atmospheric Research, NCAR)
8:55-9:07	CMIP and ACME Scenario Efforts	Claudia Tebaldi (National Center for Atmospheric Research, NCAR)
9:08-9:20	CMIP and ACME Scenario Efforts	Dorothy Koch (U.S. Department of Energy)
9:08-9:45	OPEN DISCUSSION	

Update from Existing Projects

Chair: Ghassem Asrar (JGCRI/PNNL), Notetaker: Klaus Keller

9:45-10:00	AGCI High Resolution Meeting	Andy Jones (Lawrence Berkeley National Laboratory)
10:00-10:30	MORNING BREAK	

Coupling for ESM

Chair: Andy Jones (Lawrence Berkeley National Laboratory),

Notetaker: Claudia Tebaldi

10:30-10:50	IGSM	Erwan Monier (Massachusetts Institute of Technology)
10:50-11:10	CESM & iPETS	Peter Lawrence (National Center for Atmospheric Research, NCAR)
11:10-11:30	iESM	Bill Collins (Lawrence Berkeley National Laboratory)
11:30-11:50	CNRM-IMAGE	Detlef van Vuuren (PBL)

11:50-12:20	OPEN DISCUSSION
12:20-1:30	LUNCH

Approaches for Climate Model Information

Chair: Klaus Keller (PSU), Notetaker: Erwan Monier

1:30-1:50	Characterization of Extremes (remote presentation)	Noah Diffenbaugh (Stanford University)
1:50-2:10	High Resolution Climate Modeling	Ruby Leung (Pacific Northwest National Laboratory, PNNL)
2:10-2:30	Pattern Scaling & Climate Statistics	Claudia Tebaldi (NCAR)
2:30-2:50	Tools for climate information	Rob Nicholas (Pennsylvania State University)
2:50-3:20	AFTERNOON BREAK	
3:20-5:00	PANEL DISCUSSION	
6:30	DINNER and MAGIC with DOC EASON	

THURSDAY, JULY 28, 2016

Break-out sessions on use cases from the IA-IAV-ESM workshop May 24-26

7:30-9:00	Breakfast & Informal Discussion	
9:00-10:00	Overview of Use Cases, Conceptual Diagrams, and Capabilities Needed	Richard Moss (JGCRI/PNNL) & Karen Fisher-Vanden (PSU)
10:00 – 1:00	BREAKOUT GROUPS	
1:00 – 2:00	LUNCH	
2:00 – 3:00	Report Back from Break-out Groups	Group Leads (TBD)
3:00 – 3:30	AFTERNOON BREAK	

Coupling IAV models, IAMs, and ESMs:

Chair: Ian Kraucunas (PNNL)

3:30-5:00	Panel Discussion on Coupling	Juan Carlos Ciscar (European Commission) Peter Lawrence (NCAR) Wolfram Schlenker (Columbia University) Ian Sue Wing (Boston University)
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6:00	Western BBQ at Snowmass Rodeo Grounds –shuttle from TOV
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FRIDAY, JULY 29, 2016

7:30-9:00	Breakfast & Informal Discussion
9:00-10:00	Conclusions/ wrap up/ next steps
10:00	MORNING BREAK
12:00	LUNCH
1:00 – 3:00	Writing session with co-chairs
	AFTERNOON BREAK
	INFORMAL RECEPTION

SATURDAY, JULY 30, 2016

7:30-9:00	Breakfast & Informal Discussion
9:00-1:00	Informal Discussion and Coordination with AGCI