

GCAM Community Modeling Workshop Agenda

October 16 - 18, 2018

Joint Global Change Research Institute - 5825 University Research Court #3500

Agenda Updated October 9, 2018

Tuesday, October 16th

8:30 9:00 Meeting Check-in/Registration

Welcome and Introduction

9:00	9:05	Welcome and Introduction	Ghassem Asrar (PNNL/JGCRI)
9:05	9:20	Trends in multi-scale, multi-sector modeling and GCAM	Leon Clarke (PNNL/JGCRI/UMD)
9:20	9:30	DOE Complex Systems Research	Bob Vallario (DOE/BER/CESD)
9:30	9:35	DOE BER/CESD and USGCRP Perspective	Gary Geernaert (DOE/BER/CESD)

GCAM-USA and USA Modeling

Moderator: Sha Yu (JGCRI/PNNL)

9:35	9:40	GCAM Regional Modeling Context	Sha Yu (JGCRI/PNNL)
9:40	9:50	GCAM-USA Overview	Gokul Iyer (PNNL/JGCRI)
9:50	10:10	US electric sector separating investment and dispatch	Pralit Patel (PNNL/JGCRI)
10:10	10:30	Interconnection Cost Implications of Future Electricity Capacity Expansion in the USA: A Multi-sector Approach.	Chris Vernon (PNNL/JGCRI)
10:30	10:50	Aggregate Building Energy Demand Simulations: Trees vs. Forests	Casey Burleyson (PNNL)
10:50	11:00	Discussion	

11:00 11:20 Open Discussion - future research directions

11:20	11:40	Future US Air quality and health using GCAM-USA	Dan Loughlin (EPA)
11:40	12:00	Evaluating long-term scenarios of the US energy system	Matthew Binsted (PNNL/JGCRI)
12:00	12:20	A Framework for scenarios of sub-national, multi-sector dynamics	Gokul Iyer (PNNL/JGCRI)
12:20	12:30	Discussion	

12:30 13:30 Open Discussion - future research directions (Working Lunch)

Model Coupling and Emulation

Moderator: Stephanie Waldhoff (PNNL/JGCRI)

13:30	13:50	Emulation of both global means and variability from ESMs	Robert Link (PNNL/JGCRI)
13:50	14:10	Hector, sea-level rise and probability	Ben Vega-Westhoff and Ryan Sriver (UIUC)
14:10	14:30	Coupling GCAM to a high resolution Earth System Model	Kate Calvin (PNNL/JGCRI)
14:30	14:40	Discussion	

14:40 15:00 Open Discussion - future research directions

Land and Water Interactions

Moderator: Mohamad Hejazi (PNNL/JGCRI)

15:00	15:20	Case studies of the water-energy-food nexus in Latin America	Tom Wild (UMD)
15:20	15:40	Multiple breadbasket failures	Tony Janetos (BU)
15:40	16:00	Domestic and International Implications of Future Climate for the Value of U.S. Agriculture.	Abigail Synder (PNNL/JGCRI)
16:00	16:20	Climate Change Impacts on Global and Regional Water across the Shared Socioeconomic Pathways	Neal Graham (UMD)
16:20	16:30	Discussion	
16:30	16:35	Closing remarks	Mohamad Hejazi (PNNL/JGCRI)

Poster Session

16:35	18:35	Poster Session	4th Floor ESSIC Lounge
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18:35 18:35 END OF DAY

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What's New in GCAM v5

**Moderator: Kate Calvin
(PNNL/JGCRI)**

9:00 9:05 Introduction To Day 2: GCAM and The GCAM Ecosystem

Mohamad Hejazi (PNNL/JGCRI)

9:05 9:10 Overview of GCAM 5

Kate Calvin (PNNL/JGCRI)

9:10 9:25 Land Use and Land Cover - Moirai

Alan Di Vittorio (LBNL)

9:25 Water Demand

Page Kyle (PNNL/JGCRI)

Endogenous Agricultural Management

Kate Calvin (PNNL/JGCRI)

Hector Updates

Ben Bond-Lamberty (PNNL/JGCRI)

9:55 SSP Scenario Implementation

Kate Calvin (PNNL/JGCRI)

9:55 10:10 The GCAMdata system

Ben Bond-Lamberty (PNNL/JGCRI)

10:10 10:20 Computational Improvements

Pralit Patel (PNNL/JGCRI)

10:20 10:30 Questions and Discussion

10:30 10:45 **Open Discussion** on the GCAM 5 release

The GCAM Ecosystem

**Moderator: Chris Vernon
(PNNL/JGCRI)**

10:45 11:05 Overview of the GCAM Ecosystem

Chris Vernon (PNNL/JGCRI)

11:05 11:20 Water: Xanthos, Tethys

Sean Turner (PNNL/JGCRI)

11:20 11:35 Land: Demeter/Persephone

Min Chen/Abigail Snyder
(PNNL/JGCRI)

11:35 11:45 Visualization: GCAM Dashboard

Caleb Braun (PNNL/JGCRI)

11:45 11:55 Questions and Discussion

11:55 12:00 Overview of the Afternoon Sessions

Mohamad Hejazi (PNNL/JGCRI)

12:00 13:00 **Open Discussion on GCAM 5 release (Working Lunch)**

Afternoon Parallel Sessions (see also next page)

Track 1: GCAM Overview

JGCRI 3'd floor conf room

13:00 14:30 GCAM Introduction and Overview

GCAM Team

Economy

Energy

Land

Modeling Policies

Trade

Emissions

Earth System

Water

Track 1: GCAM Tutorial

JGCRI 3'd floor conf room

14:30 14:50 GCAM Tutorial - setting up and running GCAM

GCAM Team (Page, Pralit, Haewon)

14:50 15:05 **Open Discussion** on GCAM

Track 1: GCAM Tutorial (cont)

JGCRI 3'd floor conf room

15:05 17:00 GCAM Tutorial - GCAM data queries, running a new scenario

GCAM Team (Page, Pralit, Haewon)

17:00 17:00 **END OF DAY**

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Wednesday, October 17th (cont)

Afternoon Parallel Sessions (see also previous page)

	Session Title	Location
13:00	14:50 Track II: GCAM-USA Breakout Session	ESSIC 4th floor conf room
	<i>GCAM-USA: implementation details, future plans, and applications</i>	<i>Chairs: Dan Loughlin (US EPA), Gokul Iyer (PNNL/JGCRI)</i>
13:00	14:50 Track III: GCAM Ecosystem Breakout Session	4th floor ESSIC class room
	<i>The GCAM ecosystem of models and tools: an overview and multi-sector highlights</i>	<i>Chairs: Chris Vernon (JGCRI/PNNL), Robert Link (PNNL/JGCRI)</i>
14:50	15:05 Open Discussion on GCAM	
15:05	17:00 Track II: Land-Use/Land-Use Change Breakout Session	ESSIC 4th floor conf room
	<i>Land use, land cover change in GCAM: current and future research directions</i>	<i>Chairs: Kate Calivn (JGCRI/PNNL), Alan Di Vittorio (LBNL)</i>
15:05	17:00 Track III: GCAM China Breakout Session	4th floor ESSIC class room
	<i>GCAM-China: latest developments, future plans, and applications, such as co-benefits of energy, climate, and air quality policies, implications of land use change, & coal control</i>	<i>Chair: Sha Yu (JGCRI/PNNL)</i>
17:00	17:00 END OF DAY	

Thursday October 18th

GCAM Tutorial (cont.)		JGCRI 3'd floor conf room
9:30	12:00 GCAM Hands on Assistance	GCAM Team
	<p>The GCAM hands on assistance session will provide individual assistance with GCAM. This can include model set-up and operation questions (e.g., how to access model output data), interpretation of GCAM data (e.g. how to determine investment from power plant generation), and how to create new scenarios (modifying service demand growth, add new technologies not present in the base-year, applying constraints).</p>	
12:00	13:00 Discussion of Questions and Issues Raised During Morning Session (Working Lunch)	
13:00	15:30 Continue GCAM Hands on Assistance	GCAM Team
15:30	15:30 END OF DAY	