

**2025 and Beyond: Modeling the land sector's role in achieving
GHG mitigation and adaptation goals**

8th Forestry and Agriculture Greenhouse Gas Modeling Forum

September 25-28, 2016

**National Conservation Training Center
Shepherdstown, West Virginia**

Sponsored by: US Environmental Protection Agency, US Department of Agriculture,
Agriculture and Agri-Food Canada, Natural Resources Canada

Co-hosted by: Research Triangle Institute, Nicholas Institute, University of Idaho

Workshop objective: to foster dialogue on key agriculture, forestry, and land-use change issues that will dominate upcoming climate change and energy policy discussions, and showcase associated inventory and economic and biophysical modelling tools.

FORUM AGENDA

Sunday, September 25, 2016

3:00–5:30 pm Registration | *Entry Auditorium Building*
5:30–7:30 pm Optional Dinner | *Main Dining Room*
8:00 pm Informal Discussions | *Roosevelt Room*

Day 1: Monday, September 26, 2016

6:30–8:00 am Breakfast | *Main Dining Room*
7:00–8:00 am Registration | *151 Instructional West Building*

8:00 am **Welcome and Workshop Overview**
Organizing Committee Members

8:15 am **Keynote Address**
Nate Hultman • University of Maryland

9:00–12:00 pm **Session 1: Climate and Energy Policy Perspectives**

Objective: Presenters will discuss recent efforts to address climate change issues in various policy settings and identify current and future status and modeling needs related to climate, energy, and land use policy issues.

Session Chairs: Christopher Galik (North Carolina State University), Sara Ohrel (EPA), Jan Lewandrowski (USDA)

Overview of climate change policy in Canada with a focus on forests

Tony Lemprière • Natural Resources Canada

The role of Canadian agriculture in climate change mitigation

Kara Beckles • Agriculture and Agri-Food Canada

The role of forestry and agriculture in Mexico's climate change mitigation and adaptation

Claudia Octaviano • National Institute for Ecology and Climate Change, Mexico

The land sector in a post-Paris world

Allen Fawcett • EPA Climate Change Division

USDA GHG mitigation and adaptation goals and objectives

William Hohenstein • USDA Office of the Chief Economist

Provincial policy renewal perspectives, Alberta and Canada

Tom Goddard • Alberta Agriculture and Forestry, Canada

An ag industry perspective on GHG modeling needs

Michael Lohuis • Monsanto

A supply chain perspective: Science-based metrics for sustainable agriculture in the US

Allison Thomson • Field to Market

Land carbon policy roadmap

Jeff Fiedler • Forest Trends

Comments & Group Discussion

BREAK

12:00 pm

Lunch | *Main Dining Room*

1:00–3:00 pm

Session 2: Inventory Improvements and Accounting for Natural Disturbances

Objective: This panel brings together technical experts working on the Agriculture, Forestry and Other Land Use (AFOLU) sector of the U.S. and Canadian national greenhouse gas inventories that are submitted annually to the United Nations Framework Convention on Climate Change (UNFCCC). We will discuss several ongoing improvement efforts designed to more accurately represent the anthropogenic emissions and removals reported in their national inventory submissions.

Session Chairs: Tom Wirth (EPA), Marci Baranski (USDA)

Advancing US GHG inventory by incorporating USDA conservation effects assessment project survey data

Cody Alsaker • Colorado State University

Towards more spatially and temporally resolved estimates of emissions and removals from forest land in the US

Grant Domke • US Forest Service

Capturing the impacts of human activities on reported forest greenhouse gas emissions

Werner Kurz • Natural Resources Canada

Comments & Group Discussion

3:00–3:30 pm Break

3:30–5:00 pm **Session 3: Land Use Projections**

Objective: Forestry and agriculture play an important role in national GHG projections in North America. This session will present alternative projections of US and Canadian land use projections and associated changes in carbon sequestration. It will aim to build a greater understanding of the key factors and assumptions influencing these projections.

Session Chairs: Sara Ohrel (EPA), Gregory Latta (Univ. of Idaho)

Projecting agricultural land use and consequences

Scott Malcolm • USDA

U.S. forest carbon projections: Economics and biophysical dynamics

John Coulston • US Forest Service

The role of forests and agriculture in the Billion Ton Study

Laurence Eaton • Oak Ridge National Laboratory

Comments & Group Discussion

5:30-7:30 pm Dinner is served | *Main Dining Room*

Day 2: Tuesday, September 27, 2016

6:30–8:00 am Breakfast | *Main Dining Room*

8:00–10:00 am **Session 3 (continued): Land Use Projections**

Will U.S. forests continue to be a carbon sink?

Brent Sohngen • The Ohio State University

Evaluating U.S. forest sector carbon consequence of projected increase in U.S. housing and wood energy scenarios using carbon neutrality factor as a metric

Prakash Nepal • NC State University / US Forest Service

Simulating variability in future U.S. forest GHG emissions with a spatial partial equilibrium model

Greg Latta • University of Idaho

Modeling land use changes and GHG effects with wood pellet production in the U.S.

Madhu Khanna • University of Illinois - Urbana-Champaign

Historical forest and land-use dynamics in the SE US: Implications for actual and projected futures

Bob Abt/Karen Abt • North Carolina State University/U.S. Forest Service

Comments & Group Discussion

10:00–10:30 am Break

10:30–12:00 pm **Session 4: Evaluating Policy Development & Design**

Objective: *Decision-makers need information and analysis to develop effective and efficient climate change mitigation policies. This session reviews recent modelling work designed to inform mitigation and bioenergy policy-making across North America.*

Session Chairs: Li Xue (Agriculture and Agri-Food Canada), Tony Lemprière (Natural Resources Canada), Robert Beach (RTI)

Managing agricultural land for greenhouse gas mitigation within the United States

Jan Lewandrowski/Diana Pape • USDA/ICF International

Projected emissions to 2050 and reduction projects in Alberta's agriculture sector

Tom Goddard • Alberta Agriculture and Forestry, Canada

Climate change mitigation potential of Canadian agriculture under different policy designs

Frederic Roy-Vigneault • Agriculture and Agri-Food Canada

Comments & Group Discussion

12:00 pm Lunch | *Main Dining Room*

1:00–3:00 pm **Session 4 (continued): Evaluating Policy Development & Design**

Impacts of Canada's business risk management programs on agricultural GHG emissions

Mohammad Shakeri • Agriculture and Agri-Food Canada

Forest-related mitigation analyses of REDD+ activities and harvested wood products in Mexico

Marcela Olguin • Commission for Environmental Cooperation/Consultant

Impacts of alternative climate and bioenergy policies for GHG mitigation from US forests

Nicklas Forsell • International Institute for Applied Systems Analysis

Spatially detailed biophysical and economic analysis of bioenergy from Canada's harvest residues

Carolyn Smyth • Natural Resources Canada

Comments & Group Discussion

3:00–3:30 pm Break

3:30–5:00 pm **Session 5: Climate Change Impacts/Adaptation**

Objective: *This session provide updates on activities modeling climate change impacts and adaptation strategies. Increasing attention is being paid to interactions and trade-offs between adaptation and mitigation strategies and the session also covers recent modelling work examining the links.*

Session Chairs: Tony Lemprière (Natural Resources Canada), Li Xue (Agriculture and Agri-Food Canada), Robert Beach (RTI)

Impacts of climate change on crop yield and price variability in the U.S.

Liz Marshall • Economic Research Service, USDA

A scenario analysis of impacts of climate change on Canadian agriculture and the resiliency of the sector

Li Xue • Agriculture and Agri-Food Canada

Calibrating predictions of irrigation water demand

Steve Wallander • Economic Research Service, USDA

Comments & Group Discussion

5:30-7:30 pm Dinner is served | *Main Dining Room*

Day 3: Wednesday, September 28, 2016

6:30–8:00 am Breakfast | *Main Dining Room*

8:00–10:00 am **Session 5 (continued): Climate Change Impacts/Adaptation**

Estimating agriculture and forestry impacts and GHG mitigation effects in EPA's CIRA project

Jeremy Martinich • EPA Climate Change Division

Integrated global assessment of climate change impacts and mitigation (GLOBIOM model)

Petr Havlik • International Institute for Applied Systems Analysis

Modeling the impact of climate change on Canada's forest sector

John Pedlar • Natural Resources Canada

Modeling the land use and economic implications of climate change impacts on crop yields and GHG mitigation policies - the Latin America Modeling Project
Stephanie Waldhoff • Pacific Northwest National Laboratory

Comments & Group Discussion

10:00–10:30 am Break

10:30–11:30 am **Session 6. Taking Stock and Setting Priorities for Future Model Development**

Objective: Forestry and agricultural models are under continuous development to support longer-term scenario analysis and to assess the potential effects of changes in biophysical systems, socioeconomic trends, technologies, and policies. This session highlights recent model enhancements and priorities for future model development.

Session Chair: Ron Sands (Economic Research Service, USDA)

Next generation tools for estimating, reporting, and projecting greenhouse gas emissions and removals in the land sector

Werner Kurz • Natural Resources Canada

Approaches to integrative agricultural modeling

Sherman Robinson • International Food Policy Research Institute

Comments & Group Discussion

11:30–12:00 pm **Wrap-Up—Workshop Review & Conclusion**

Christine Dragisic • Council on Environmental Quality / US State Dept.

Closing thoughts • Organizing Committee Members

12:00 pm **CHECK OUT TIME. We suggest checking out prior to the end of the Forum to ensure you have enough time to complete the process. NCTC has a large group coming in and may not be able to accommodate late check out requests. You may store your bags with the hotel for the remainder of your time on campus.**

12:00 pm Lunch | *Main Dining Room*

1:30 pm *Shuttle departs for Dulles Airport*
