

AGENDA
LCLUC Spring Science Team Meeting 2013

Dates: April 2-4 2013

Location: Hilton Washington DC/Rockville Hotel & Executive Meeting Center
1750 Rockville Pike, Rockville, Maryland, USA 20852-1699, Tel: +1-301-468-1100

<http://www3.hilton.com/en/hotels/maryland/hilton-washington-dc-rockville-hotel-and-executive-meeting-ctr-IADMRHF/index.html>

Day 1. April 2nd

Session 1. Introduction Session

- 9.00 – 9.30 Welcome and Program Status – **Garik Gutman**
9.30 – 9.45 Objectives of the Meeting and Agenda – **Chris Justice**

Session 2. LCLUC in Wetlands (20-min talks)

- 9.45 – 10.10 Land and resource use on the Amazon floodplain under evolving management systems and environmental change: fish, forests, cattle, and settlements – **Laura Hess** (U. Ca, Santa Barbara)
10.10 -10.35 Vulnerability assessment of mangrove forests in the Americas – **Marc Simard** (NASA JPL)

10.35 – 11.00 Break

- 11.00– 11.20 Global-scale assessment of threatened river delta systems: Evaluation of connections between the continental land mass and ocean through integrated remote sensing and process modeling - **Charles Vorosmarty** (City College, NY)
11.25 – 11.45 Mapping and Monitoring of Wetland Dynamics for Improved Resilience and Delivery of Ecosystem Services in the Mid-Atlantic Region – **In-Young Yeo** (U. Maryland)
11.50 – 12.10 Vulnerability and adaptive management of tropical coastal wetlands in the context of land use and climate changes – **Mei Yu** (U. Puerto Rico)

12.15 – 1.30 Lunch

- 1.30 – 1.50 Spatial Modeling for Selecting Areas of Wetland Cultivation and Preservation in Africa: Satellite Sensor Data Fusion to Support Africa’s Green and Blue Revolution- **Prasad Thenkabail** (USGS)

Session 3. Programmatic Perspectives and Initiatives (20-min presentations + 5 min for questions)

- 2.00 – 2.25 Report of the NRC Land Use Modeling Study - **Dan Brown** (U. Michigan)
2.25-2-35 Status of Landsat Data Continuity Mission **Jim Irons** (NASA GSFC)
2.35 – 0.50 Landsat-8 Update and collaboration with Sentinel-2 Program – **Jeff Masek** (NASA GSFC)
2.50 – 3.15 LCLUC and High res data update, showcasing high-res applications - **Chris Justice** (UMD)

3.15-3.35 Discussion

3.35-3.45 **Group Photo**

3.45 – 4.00 *Break*

Session 4. Poster Session

4.00 - 5.00 LCLUC-2012 Early Career Scientists rapid (5-min) introductions to posters

Becker-Reshef, Inbal (U. Maryland): Food, Price and Conflict: Earth Observations-based Agricultural Production forecasting to assess potential impacts on grain markets and civil unrest

Cobourn, Kelly (Boise State U.): Water Institutions and Agricultural Land-Use Change across the Western U.S.

Galford, Gillian (U. Vermont): Environmental and socioeconomic outcomes of the new African Green Revolution

Grace, Kathryn (U. Utah): Examining the links between agriculture and human health in a context of climate change: A case study of three West African countries - Niger, Burkina Faso and Mali

Julian, Jason (U. Oklahoma): Land Management Impacts on Water Quality in New Zealand across Political Boundaries

Leisz, Stephen (Colorado State U.): Increased accessibility, landscape changes, rural transformations, and urbanization: Impacts of the east-west economic corridor from Da Nang, Vietnam, to Khon Kaen, Thailand

McCarty, Jessica (Michigan Tech Research Institute): The role of environmental, socioeconomic, institutional, and land-cover/land-use change factors to explain the pattern and causal drivers of anthropogenic fires in post-Soviet Eastern Europe

Wendland, Kelly (U. Idaho): Land tenure, property rights, and land cover and land use change at transboundary sites in the Mesoamerican Biological Corridor University of Idaho

Loboda, Tatiana (U. Maryland): Social drivers of land cover change around African transboundary Peace Parks

Zhou, Yuyu (Joint Global Change Research Institute): Understanding and Simulating Global Urban Expansion in the Context of Climate Change

5.00 – 7.30 Poster viewing and reception¹:

End of Day 1

¹ Includes Early Career Scientist, IDS, NIP, and NESSF

Day 2. April 3rd

9.00 – 9.20 HQ Earth Science update and the role of the LCLUC program - **Jack Kaye** (NASA HQ)

Session 5. Synthesis of LCLUC in Northern Eurasia (20-min presentations)

9.25 – 9.45 NEESPI Status: An update of the recent activities and near-term plans – **Pasha Groisman** (NOAA/UCAR)

9.50 – 10.10 Synthesis of studies on institutional change and LCLUC effects on carbon, biodiversity, and agriculture after the collapse of the Soviet Union - **Volker Radeloff** (U. Wisconsin)

10.15 – 10.35 LCLUC Synthesis: Forested Land Cover And Land Use Change In The Far East Of Northern Eurasia Under The Combined Drivers Of Climate And Socio-Economic Transformation– **Kathleen Bergen** (U. Michigan)

10.40-11:00 *Break*

11.00 – 11.20 Synthesis and Integration of Recent Research Characterizing the Carbon Cycle of Northern Eurasia – **Michael Rawlins** (U. Massachusetts)

11.25 – 11.45 Synthesis of forest growth, response to wildfires and carbon storage for Russian forests using a distributed, individual-based forest model - **Hank Shugart** (U. Virginia)

11.50 – 12.30 Discussion on NEESPI next steps

12.30– 1.30 *Lunch*

Session 6. Presentation of Project Final Results on Agricultural Land Use

1.30 – 1.50 The impact of disappearing tropical Andean glaciers on pastoral agriculture – **Dan Slayback** (NASA GSFC)

1.55-2.15 Linking Historical and Future Land-Use Change to the Economic Drivers and Biophysical Limitations of Agricultural Expansion in the Brazilian Cerrado - **Michael Coe** (Woods Hole Research Center)

2.20 – 2.40 Rates and Drivers of Land Use Land Cover Change in the Agricultural Frontier of Mato Grosso, Brazil – **John Mustard** (Brown U.)

2.45 – 3.05 Changing Field Sizes of the Conterminous United States, a Decennial Landsat Assessment – **David Roy** (South Dakota State U.)

3.05- 3.25 A Satellite Supported Inverse Biophysical Modeling Approach for the Detection of Irrigated Agricultural Land and the Determination of the Amount of Irrigation in Arid and Semi-Arid Regions – **Lahouari Bounoua** (NASA GSFC)

3.25 – 3.45 Break

Session 7. Poster Session: LCLUC- IDS Rapid presentations (5-min introduction to the poster)

3.45- 4.15 *Invited Posters: Interdisciplinary Research Urban studies (Environmental Impacts)*

Nghiem, Son (JPL): Mega Urban Changes and Impacts in the Decade of the 2000s

Myint, Soe (Arizona State U): Understanding Impacts of Desert Urbanization on Climate and Surrounding Environments to Foster Sustainable Cities Using Remote Sensing and Numerical Modeling

Stow, Douglas (San Diego State U): The Urban Transition in Ghana and Its Relation to Land Cover and Land Use Change through Analysis of Multi-Scale and Multi-Temporal Satellite Image Data

Henebry, Geoffrey (South Dakota State U): Storms, Forms, and Complexity of the Urban Canopy: How Land Use, Settlement Patterns, and the Shapes of Cities Influence Severe Weather Storms, Forms, and Complexity of the Urban Canopy

Friedl, Mark (Boston U): 4-D Modeling of the Regional Carbon Cycle in and Around Urban Environments: An Interdisciplinary Study to Advance Observational and Modeling Foundations

Bounoua, Lahouari (NASA GSFC): Combining Satellite Data and Models to Assess the Impacts of Urbanization on the Continental United States Surface Climate Combining satellite data and models to assess the impacts of urbanization on the continental United States surface climate.

4.15- 5.30 **Poster viewing**

End of Day 2

Day 3. April 4th

Session 8. Monsoon Asia Regional LCLUC

- 9.00-9.20 Multi-sensor Fusion to Determine Climate Sensitivity of Agricultural Intensification in South Asia – **Ruth DeFries** (Columbia U.)
- 9.20 – 10.40 Quantifying changes in agricultural intensification and expansion in monsoon Asia during 2000-2010 – **Xiangming Xiao** (U. Oklahoma)
- 10.40 – 11.00 Summary of the Regional Workshop on LCLUC in S. Asia - **Krishna Vadrevu** (UMD)
- 11.00-11.10 Proposed Asia Initiative (**Rama Nemani, NASA AMES**)
- 11.10 - 11.30 Discussion of Opportunities for a South Asia LCLUC Integrated Research Initiative
- 11.30 – 11.45 *Break*
- 11.45-12.00 GLP Update (**Giovana Espindola, GLP**)
- 12.00-12.10 Emerging Trans-Atlantic Training (TAT) initiative (**Premysly Stych, Charles University**)

Session 9. Meeting Wrap-Up Session

- 12.10 –12.30 Facilitated Q &A and discussion on the LCLUC Program – Chris Justice
- 12:30 – 1:00 Meeting Summary and Concluding Program Remarks – Garik Gutman

End of Meeting

INVITED Posters

NIP-2011

Falkowski, Michael - Michigan Technological University. Enhancing Tools and Geospatial Data to Support Operational Forest Management and Regional Forest Planning in the Face of Climate Change

Kirschbaum, Dalia - Goddard Space Flight Center. Using Remotely Sensed Data to Bridge Empirical and Physical Approaches for Landslide Monitoring and Early Warning

George Grekousis; State University of New York: Socio-economic characteristics of high/low developed land consumption areas in the conterminous US

NESSF-2012 and -2011

DeVisser, Mark H; Michigan State University: Land Cover Change and Disease Ecology: The Unintended Impacts of Prosopis Juliflora in Kenya.

Whitcraft, Alyssa Kathleen; University of Maryland: Developing an Image Acquisition Strategy For Global Agricultural Monitoring.

Xiaopeng Song; University of Maryland: An integrated Assessment of Deforestation on Terrestrial Carbon Storage and Value of Ecosystem Services.

Hao Tang; University of Maryland: Determining Tropical Rain Forest Successional States Using Vertical Leaf Area Index (LAI) Profiles from Lidar Remote Sensing.