LCLUC Spring Science Team Meeting, 2018

3-5 April, Gaithersburg Marriott Washingtonian Center (Rio), Maryland

Meeting Objectives

This LCLUC Science Team meeting will consist of presentations from the LCLUC Science Team members funded for research on LCLUC in South Asia and Synthesis (ROSES 2015 Selections), and posters of recent results from other ongoing LCLUC research including LCLUC-relevant projects under other programs, such as Inter-Disciplinary Science, Carbon Cycle, Students Fellowships and New Investigator Programs. The third day will focus on the final results from the 2014 LCLUC Multisource Land Imaging (MuSLI) initiative, recent MuSLI proposal selections and future interactions with the Landsat Science Team.

AGENDA

DAY 1 (3 APRIL, TUESDAY)

9:00- 9:50	**Session – I. Introduction Session**

9:00- 9:40 Welcome Address and LCLUC Program Update – Garik Gutman (NASA HQ)

9:40 -9:50 Meeting Agenda – Chris Justice (University of Maryland)

9:50-11:45	**Session – II. LCLUC Invited Talks**

9:50-10:20 NASA Earth Science Update & the Role of the LCLUC Program – Jack Kaye (NASA HQ)
Q & A

10:20-10:50 Break

10:50–11:20 Invited Keynote: The Global Land Project - Recent Developments – Ariane de Bremond (GLP, U.Bern)

11:20–11:45 **Discussion on Future Directions for LCLUC Research – Chris Justice (U. Maryland)**

11:45-12:00 Group Picture

12:00-1:30 Lunch

1:30-3:30	Session - III. LCLUC in South Asia

1:30-1:50 Complex Forest Landscapes and Sociopolitical Drivers of Deforestation - The Interplay of Land-use Policies, Armed Conflict, and Human Displacement in Myanmar – Peter Leimgruber (Smithsonian Inst.)

1:50-2:10 Understanding the role of land cover / land use nexus in malaria transmission under changing socio-economic climate in Myanmar – Tatiana Loboda (U. Maryland)

2:10-2:30 Urban growth, land-use change, and growing vulnerability in the Greater Himalaya mountain range across India, Nepal, and Bhutan – Karen Seto (Yale U.)

2:30-2:50 The Future of Food Security in India: Can Farmers Adapt to Environmental Change? – Meha Jain (U. Michigan)

2:50-3:10 Tropical Deciduous Forests of South Asia: Monitoring Degradation and Assessing Impacts of Urbanization – Ruth DeFries (Columbia U.)

3:10-3:30 Understanding changes in agricultural land use and land cover in the breadbasket area of the Ganges Basin 2000-2015: A socioeconomic-ecological analysis – Liping Di (George Mason U.)

3:30–4:00 *Break*

4:00 – 7:30	Session – IV. Poster presentations

4:00-5:00 Rapid (1.5-minute) Introduction to Posters (SARI SE Asia, Caucasus, Students, NIP, IDS, Carbon)

5:00-7:30 Poster viewing and reception (Sponsored by SGT)

7:30 *Adjourn*

DAY 2 (4 APRIL, WEDNESDAY)

9:00 – 12:00 Session – V. LCLUC in South Asia (cont.)

9:00-9:20 Spatiotemporal Drivers of Fine-Scale Forest Plantation Establishment in Village-Based Economies of Andhra Pradesh – Randy Wynne (Virginia Tech.)

9:20-9:40 Impacts of afforestation on sustainable livelihoods in rural communities in India.- Forrest Fleischman (University of Minnesota)

9:40-10:00 Consequences of changing mangrove forests in South Asia on the provision of global ecosystem goods and services - Jeff Vincent (Duke U.)

10:00-10:20 Landscapes in flux: The influence of demographic change and institutional mechanisms on land cover change, climate adaptability and food security in rural India – Aditya Singh (U. Florida)

10:20-11:00 Break

11:00 – 2:50 Session – VI. International Linkages and Capacity Building in SARI region

11:00-11:20 South/Southeast Asia Research Initiative (SARI) and SERVIR activities in Southeast Asia - Krishna Vadrevu (NASA MSFC) and Nancy Searby (NASA HQ)

11:20-11:40 Future Asia/MAIRS activities in the SARI region and the IDS Mekong WEF Project – Jiaquo Qi (Michigan State U.)

11:40-12:00 Land-Use Impacts in Coastal Zone in the SARI region – Charles Vorosmarty (City University, NY) (*Presented by Zachary Tessler*)

12:00-1:30 Lunch

1:30-1:50 Landsat time-series derived 30m cropland extent product in support of food and water security – Prasad Thenkabail (USGS)

1:50-2:50 **Open discussion of the projects and future directions in SARI – Krishna Vadrevu (NASA MSFC)**

2:50-3:05 Break

3:05 – 3:50 Session – VII. LCLUC Synthesis Presentations

3:05-3:20 Regionally Specific Drivers of Land-Use Transitions and Future Scenarios: A Synthesis Considering the Land Management Influence in the Southeastern US – Valerie Thomas (Virginia Tech.) (*Presented by Randy Wynne*)

3:20-3:35 The Global Land Rush: A Socio-Environmental Synthesis – Ariane de Bremond (U. Maryland)

3:35-3:50 Synthesis of Drivers, Patterns, and Trajectories of LCLUC in Island Ecosystems - Steve Walsh (U. North Carolina)

3:50 – 4:50 Discussion on LCLUC status and future directions

4:50 Adjourn

DAY 3 (5 APRIL, THURSDAY)

9:00 – 10:30 Session – I. MuSLI Final Results Summaries (LCLUC-2014 ROSES)

9:00-10:00 MuSLI and Landsat Science Team Status - Jeff Masek (NASA GSFC) and Chris Crawford (USGS)

10:00-10:15 Operational algorithms and products for near real time maps of rice extent and rice crop growth stage using multi-source remote sensing - Bill Salas (Applied GeoSolutions, LL) (*Presented by Nate Torbick)*

10:15-10:30 Towards Near Daily Monitoring of Inundated Areas over North America through Multi-Source Fusion of Optical and Radar Data – Cheng Huang (U. Maryland)

10:30-10:45 Break

10:45-12:00 Session – II. MuSLI final results (LCLUC-2014 round) continued

10:45-11:00 Multi-source imaging of time-serial tree and water cover at continental to global scales – John Townshend (U. Maryland) *(Presented by Joe Sexton)*

11:00–11:15 Multi-source imaging of infrastructure and urban growth using Landsat, Sentinel and SRTM – Chris Small (Columbia U.)

11:15–11:30 Integrating Landsat 7, 8 and Sentinel 2 data in improving crop type identification and area estimation – Matt Hansen (U. Maryland)

11:30-11:45 Moving from Prototyping Multisource Imaging of Seasonal Dynamics in Land Surface Phenology (Type II) to Production (Type 1) - Mark Friedl (Boston U.)

11:45-12:00 Moving from Prototyping a Landsat-8 Sentinel-2 global burned area product (Type II) to Production (Type 1) – David Roy (South Dakota State U.)

12:00-1:30 Lunch

1.30 – 3:30	**Session – III. New MuSLI and Landsat Science Team proposal selections**

1:30-3:30 Rapid 1-slide Presentations of Newly Selected MuSLI and Landsat Science Team Projects

3:30 – 5:00	**Session – IV. Meeting Wrap-Up**

3:30-4:30 **Facilitated Discussion of MuSLI/Landsat future direction – Jeff Masek (NASA GSFC)**

4:30-5:00 Meeting Summary and Concluding Remarks – Garik Gutman (NASA HQ)

5:00 *Adjourn*