

**NASA-LCLUC Science Team Joint Meeting with
MAIRS, GOF-C-GOLD and SEA START Programs on
Land-Cover/Land-Use Change Processes in Monsoon Asia Region
Jan. 12 – 17, 2009**

Science Team Meeting: Presentations, Posters, Discussion Sessions and Land Use Field Visit

Venue: Pullman Khon Kaen Raja Orchid Raja Hotel, Khon Kaen, Thailand
(<http://www.sofitel.com/gb/hotel-1877-pullman-khon-kaen-raja-orchid/index.shtml>)

Local Host: **Mekong Institute**, Khon Kaen University, Thailand
(<http://www.mekonginstitute.org>)

Day 1, Jan. 12, 2009 (Monday)

A. Introductions and opening comments 9.00-10.15 (15 mins presentations)

- Dr. Garik Gutman (Program Manager, NASA LCLUC)
- Dr. Suchat Katima (Director, Mekong Institute)
- Dr. Thongchai Charupatt (Director, GISTDA)
- Dr. Liqin Shao (Ministry of Science & Technology, China)
- Dr. Michael Brady (Executive Director, GOF-C/GOLD)
- Dr. Ailikun (IPO Director, MAIRS Program)

Objectives of the Workshop 10.15-10.30

- Dr. Chris Justice (Univ. of Maryland, NASA LCLUC Program Scientist)

Coffee/Tea Break 10.30 – 11.00

Keynote Science Presentations 11.00-12.00 (25 mins presentations)

- Dr. Ailikun (IPO Director, MAIRS Program) MAIRS Research Program in Monsoon Asia

- Dr. Charat Mongkolsawat (Director of Regional Center for Geo-informatics and Space Technology, Khon Kaen Univ.) A comparative study of LUC along the Mekong River at the border of Thailand and the Lao PDR

- Questions

Lunch Break 12.00 – 1.30

B. Thematic Sessions 1.30-5.30 – (20 mins presentations)

Monitoring of Land Cover Change 1.30-2.30 (Session Chair, Dr. Jiagou Qi (Michigan State Univ.))

- Dr. Matt Hansen (South Dakota State Univ.) Producing Composite Imagery and Forest Cover and Change Characterizations for the Humid Tropics: A Contribution to the MDGLS Activity

- Dr. Xiangming Xiao (Univ. Oklahoma) Developing Land Cover Classification Products in Monsoon Asia 2004-2007 through the Integration of Landsat and ALOS/PALSAR Images

- Dr. Xiaoling Chen (Wuhan Univ.) A research network for Asia Pacific Regional Forest Monitoring based on Remote Sensing

Forests, Carbon and REDD 2.30-5.00 (Dr. Michael Brady, GOF-C-GOLD, Session Chair)

- Dr. Curtis Woodcock (Boston Univ.) REDD and the GOF-C GOLD Program

Coffee/Tea Break 3.00-3.30

- Dr. David Skole (Michigan State Univ.) Enhancing Global Observations and Information on Tropical Forest Change Using Landsat Global Data

- Dr. Jeff Fox (Univ. Hawaii) The Expansion of Rubber and its Implications for Water and Carbon Dynamics in Montane Mainland Southeast Asia

- Dr. Atul Jain (Univ. Illinois, Urbana-Champaign) Land Cover and Land Use Change and its Effects on Carbon Dynamics in Monsoon Asian Region

Dr. Garik Gutman (NASA HQ) NASA Land-cover Land-use Change Program 5.00-5.30

A glimpse of LUCC history on video 5.30-6.00

Meeting photo 6.00

C. Poster Session and Welcome Reception 7.00- 8.30

Day 2, Jan. 13, 2009 (Tuesday)

D. Program Overview Presentations 8.30 -12.30 (20 mins presentations) (Chair: Dr. Suchat Katima)

International and Regional Program Overviews 8.30-9.50

- Dr. Suchat Katima (Mekong Institute) Mekong Institute

- Dr. Michael Brady (Natural Resources Canada) GOF-C/GOLD and GEO

- Dr. Anond Snidvongs (START) SEA START

National Programs 9.50 - 12.30

- Dr. Marjut Nyman (iLEAPS) Land Cover and Land Use Change Research at iLEAPS

- Dr. Jiagou Qi (Michigan State Univ.) Land Cover and Land Use Change Research in China

- Dr. Sithong Thongmanivong (National Univ. Laos) Land Cover and Land Use Change Research in Laos

Coffee/Tea Break 10.30 – 10.50

- Dr. Do Xuan Lan (Ministry of Agriculture and World Devel.) Land Cover and Land Use Change Research in Vietnam
- Dr. Alma Arquero (National Mapping and Resource Information Authority) Land Cover and Land Use Change Research in the Philippines
- Dr. Hartanto Sanjaya (Agency for Assessment and Application of Technology) Land Cover and Land Use Change Research in Indonesia
- Dr. Mastura Mahmud (Univ. Kebangsaan) Land Cover and Land Use Change Research in Malaysia
- Dr. Xubin Zeng (Univ. Arizona) COSMOS

Lunch Break 12.30 –2.00

National Programs 2.00 - 3.00 *continued*

- Dr. M.S.R Murthy (National Remote Sensing Centre – Indian Space Research Organisation) Land Cover and Land Use Change Research in India
- Dr. Kyu-Sung Lee (Inha Univ.) Land Cover and Land Use Change Research in South Korea

E. Breakout Group Discussion Session 3.00 – 4.30

1. Priorities for Land-use Science in Southeast Asia and New Regional Opportunities for MAIRS – Dr. Jianguo Qi (Michigan State Univ.) and Dr. Ailikun (MAIRS)
2. Land Cover Validation (GOF-C-GOLD) – Dr. Curtis Woodcock (GOF-C-GOLD, Boston Univ.)
3. REDD and Carbon – Dr. Matt Hansen (South Dakota State Univ.) and Dr. David Skole (Michigan State Univ.)
4. The way forward for the GOF-C-GOLD regional land use network (SEARIN) – Dr. Michael Brady (GOF-C/GOLD)

F. Tour of Khon Kaen, Khon Kaen University, and Mekong Institute 5.00-6.30

G. Welcoming Dinner and Isaan Cultural Performance at Mekong Institute 7.30

Day 3, Jan. 14, 2009 (Wednesday)

H. Land Use Systems Field Excursion – Tropical lands under economic development pressures and climate change. 8.00am – 9.00pm

Presentation at Pullman Hotel 8.00-9.00

- Dr. Patma Vitakon (Khon Kaen Univ.) Research site in the Kao Song Khuang District

Depart Pullman Hotel 9.00

Arrive at Kan Muan Village at Kao Song Khuang District 10.00

Presentation 10.00-10.30

- Dr. Patma Vitrakon (Khon Kaen Univ.) Overview of the village

Discussion with farmers about land-use change, economic pressure and upland crops 10.30-11.30

Refreshments served during discussion

Depart for Ubonrat District 11.30

Arrive at UNEP site in Ubonrat District 12.10

Lunch 12.10 – 1.30

Presentation 1.30-2.00

- Dr. Tantip (Sustainable Development Foundation) Overview of the site

Discussion with owner about land-use change and integrated farming 2.00-2.30

Observation of field activities – rice fields, fruit and vegetable gardens, fish pond and livestock 2.30-3.30

Depart for Ubonrat Dam 3.30

Refreshments served on the bus

Arrive at Ubonrat Dam 4.00

Free activities 4.00-5.00

Depart for Khon Kaen 5.00

Arrive at Pullman Hotel 6.00

Depart for dinner 6.30- Cho Lon Puu Restaurant by the lake 7.00-9.00

Day 4, Jan. 15, 2009 (Thursday)

J. Keynote Presentation 8.30 – 9.00

- Dr. Alfredo Huete (Univ. Arizona) Introduction & Summary of US-SE Asia-Japan Workshop on carbon dynamics and sustainability in tropical forests

K. NSF/APN Special Session: Land Use, Carbon Dynamics and Forest Functioning
(Chairperson: Alfredo Huete) 9.00 – 10.30 (20 mins presentations)

- Dr. Ruandha Agung Sugardiman (Ministry of Forestry) National plan for forest management in Indonesia under global change

- Dr. Jay Samek (Michigan State Univ.) Carbon Financial Markets, Rural Poverty, and Global Climate Change in S.E. Asia –and- Sustainable Community Forestry and Poverty Reduction in Vietnam
- Dr. Yoshio Inoue (National Inst. Agro-Env. Sciences) Forest succession and its impact on carbon sequestration

Coffee/Tea Break 10.30 – 11.00

L. Keynote Presentation 11.00- 11.30

- Dr. Patma Vityakon (Khon Kaen Univ.) Land-use change and its impact on soil and land resources in Northeast Thailand

M. Thematic Session: Observing Systems for LULC 11.30–12.30 (Chairperson: Dr. Thongchai Charupatt, GISTDA) (20 mins presentations)

- Dr. Chaowalit Silapathong (GISTDA) THEOS for studying LCLUC
- Dr. Liqin Shao (China Remote Sensing Center) CBERS and other systems
- Dr. Garik Gutman (NASA HQ) LDCM and the GLS program

Lunch 12.30 – 2.00

M. Thematic Session: Observing Systems for LULC 2.00–3.00 (Chairperson: Dr.

- Dr. M.S.R. Murthy (National Remote Sensing Centre – Indian Space Research Organization) Indian Remote Sensing Systems
- Dr. Ailikun (Chinese Academy of Sciences) China’s Earth Observation Systems and Receiving Stations for Land Use and Land Cover Change

I. Breakout Session (continued) mixed with Coffee Break 3.00-4.00

1. LU Research Priorities and Looking for Synergy between the various Research Networks – Dr. Alfredo Huete (Univ. Arizona) and Dr. Jiaguo Qi (Michigan State Univ.)
2. Land Cover Classification Schemes and a possible GOFc Regional Initiative – Dr. Curtis Woodcock (GOFc-GOLD, Boston Univ.) and Dr. M.S.R. Murthy (National Remote Sensing Centre – Indian Space Research Organization)
3. The way forward for the GOFc-GOLD regional land use network (SEARIN): Regional priorities, management structure and outreach – Dr. Michael Brady (GOFc/GOLD)

I. Report back from breakout session Chairs 4.00 – 5.30

- BO 1. Land Cover Validation (GOFc-GOLD) – Dr. Curtis Woodcock (GOFc-GOLD, Boston Univ.)
- BO 2. Priorities for Land-use Science in Southeast Asia and New Regional Opportunities for MAIRS – Dr. Jiaguo Qi (Michigan State Univ.) and Dr. Ailikun (MAIRS)
- BO 3. REDD and Carbon – Dr. Matt Hansen (South Dakota State Univ.) and Dr. David Skole (Michigan State Univ.)

BO 4. LU Research Priorities and Looking for Synergy between the various Research Networks – Dr. Alfredo Huete (Univ. Arizona) and Dr. Jiaguo Qi (Michigan State Univ.)

BO 5. The way forward for the GOF-C-GOLD regional land use network (SEARIN) – Dr. Michael Brady (GOF-C/GOLD)

Day 4, Jan. 16, 2009 (Friday)

O. Thematic Science Session: Land Use Science 8.30 – 12.30 (Chairperson Dr. Charlie Navanugraha, Mahidol Univ.) (20 mins. presentations)

- Film: About Urbanization presented by Garik Gutman

- Dr. Annemarie Schneider (Univ. of Wisconsin - Madison) Monitoring and modeling urbanization in China: A mixed methods and multi-scale approach

- Dr. Juanle Wang (Chinese Academy of Sciences) Introduction of Earth System Science Data Sharing Network in China

- Dr. R.B. Singh (Univ. of Delhi) Application of geographical information systems to land management problems in India

- Dr. Chunyang He (Beijing Normal Univ.) Modeling urban expansion scenarios in Beijing, China under the restriction of the water resource and land use policy

- Dr. Jinjun Ji (Chinese Academy of Sciences) Modeling studies of the effects land cover change on climate in China

- Dr. Hanqin Tian (Auburn Univ.) Land Use-Ecosystem-Climate Interactions in Monsoon Asia

Coffee/Tea Break 10.30 -11.00

- Dr. Xing Chen (Univ. Nanjing) Land use and climate in the eastern China in the last three centuries

P. Meeting Conclusions 11.30 – 12.00

- Dr. Garik Gutman (NASA HQ)

Lunch 12.00 – 1.30

Q. Free time for sightseeing and group meeting

Day 6, Jan. 17, 2009 Saturday

Training Session on LCLUC and Climate Change 9.00 – 5.00 (Dr. Jiaguo Qi, Dr. Mutlu Ozdogan, Dr. Piyachat Ratana, Dr. Alfredo Huete)

A. **Geospatial Technologies**, 9-10.30 (Dr. Qi et al.)

Coffee/Tea Break 10.30 – 11.00

B. **Geospatial Methods**, 11-12.30 (Dr. Piyachat Ratana et al.)

Lunch 12.30 – 2.00

C. **Applications (1)** 2.00-3.30 (Dr. Mutlu Ozdogan)

Forest mapping, change detection, biophysical retrievals, and validation (incl. fire) in tropical regions and hydrology

Coffee/Tea Break 3.30 – 4.00

D. **Applications (2)** 4.00-5.00: Demonstrations (Dr. Mutlu Ozdogan)

Training session summary 5.00 – 5.30 (all)