

International Regional Meeting, LCLUC- Vietnam

Meeting Overview

Session 1. November 5-6:

This year's LCLUC meeting will include a two-day field science workshop on the Vietnam's Halong Bay, a unique World Heritage site northeast of Hanoi. The theme is land use change pressure in the Red River coastal zone and Halong Bay region. The drive by bus will pass through peri-urban areas near Hanoi, through the northern edge of the Red River Delta and then into the coastal zone as we approach Halong Bay. The land-water interface is extraordinary, where peri-urban and rural livelihoods depend on wet agriculture, forestry and fishing. At the same time, this is a region of extreme development pressure, both industrial and agricultural. Enroute we will discuss the landscape and witness its complexity and dynamics. Registration is now closed for this workshop.

Session 2. November 7-10:

Land Cover Land use Change in SE Asia

Hosted by the Hanoi University of Agriculture, Hanoi, Vietnam

The LCLUC workshop will involve discussions and presentations of land-cover/land-use issues pertinent to the region. The agenda includes programmatic overviews, invited science overview presentations, trends in land cover and land use: methods/ data sets/assessments, human dimensions: vulnerability, impacts, adaptation, carbon monitoring, verification and reporting, peri-urban processes field trip, panel discussion, synthesis and wrap-up. Registration is required for this workshop.

Session 3. November 11-12: [Regional Training Workshops](#)

Two workshops are available for your choice with registration and are departing directly from the Hanoi Melia Hotel.

A. WORKSHOP ON THE PERI-URBAN INTERFACE IN THE RED RIVER DELTA

This workshop will demonstrate methods being developed at the East-West Center, the University of Wisconsin-Madison, and Hanoi University of Agriculture for collecting and integrating socioeconomic data from censuses and surveys with information on land cover, roads, and other infrastructure from remotely sensed images and thematic maps to produce maps of 'urbanicity'; a terms that refers to the relative 'rural' or 'urban' characteristics of the environment. Registration is required for this meeting.

B. WORKSHOP ON REMOTE SENSING AND FIELD-BASED ESTIMATION OF CARBON STOCKS IN TROPICAL FORESTS

The two-day training workshop will include both a field visit and computer lab training in remote sensing analysis techniques for quantifying carbon in forest and agroforestry systems. The field visit will be to Bac Giang Province on the first day of the workshop. This area is approximately 100 km Northeast of Hanoi. Bac Giang offers a complex landscape mosaic of annual crops such as cassava and soybean, litchi orchards; wetland rice systems; and forested areas (both production and protection forests). Land devoted to Litchi production in Bac Giang has increased significantly since the mid 1980s. The LCLUC conversion to Litchi has been from annual crops (mostly cassava) and degraded grass and shrub land areas. Reforestation for both production and protection forests has also increased in Bac Giang in the past ten years. Registration is required for this workshop.

Workshop on Land Cover Land Use Change, South East Asia
Hosted by the Hanoi University of Agriculture, Hanoi, Vietnam
Melia Hotel

Session 2- Workshop Agenda Nov 7-10

Day 1- Monday November 7

9.00 **Introduction** Welcome- Dr. Tran Duc Vien, Rector, Hanoi University of Agriculture

9:15 **Opening Speech** Dr. Pham Anh Tuan, Vietnam Academy of Science and Technology

9:30 **Objectives of the Meeting** including Khon Khaen recap—Christopher Justice

9.45 **1. Programmatic Overviews** NASA, GOFC-GOLD, MAIRS (15 minutes)

- NASA LCLUC – Garik Gutman, NASA Headquarters
- NASA-MAIRS Update – Ailikun, MAIRS/Jiaguo Qi, Michigan State University
- GOFC-GOLD SEARRIN – Olga Krankina, Oregon State University

10:30 Break

11:15 **1.1 Programmatic Overviews continued** (15 minutes)

- GEOSS Agricultural Monitoring and SE Asia – Christopher Justice, University of Maryland
- Seven Seas campaign - Hal Maring, NASA Headquarters

11:45 **2. Invited Science Overview Presentations** (20 minutes)

- Carbon, land management, forest - David Skole, Michigan State University
- Land cover and land use change and its effects on carbon dynamics in the Monsoon Asian Region- Atul Jain, University of Illinois
- Mapping land cover in Indochina using multiple sensing systems- Dr. Nguyen Dinh Duong, Institute of Geography, Hanoi

12:45 Lunch

13:45 Group Photo- Meet in Lobby of Melia Hotel

14.00 **3. Trends in Land Cover and Land Use: methods/ data sets/assessments** (15 minutes)

- MODIS and VIIRS vegetation index and validation - Tomoaki Miura, University of Hawaii at Manoa
- MODIS and Landsat regional products - Matthew Hansen, University of Maryland
- EO1 Hyperion and ALI - methods - Steve Ungar, NASA Goddard Space Flight Center
- Chinese Data and their radiometric calibration- Shunlin Liang, University of Maryland
- Synergy of optical and microwave sensor data in land-cover mapping - Xiomng Xiao, University of Oklahoma

15.15 Break

15.45 **3.1 Trends in Land Cover and Land Use Cont'd** (15 minutes)

- GIS modeling of land demand allocation in Greater Mekong Subrgion - Lothar Linde, Environment Operations Center, ADB GMS Core Environment Program
- Land cover change in Lancangjiang river basin - Yili Zhang, Chinese Academy of Sciences
- A landscape mosaics approach for characterizing swidden systems from a REDD+ perspective - Andreas Heinimann, WREA

17:30 Close of Day 1

17.45 SEARRIN Coordination Meeting

19.00 Dinner hosted by Hanoi University of Agriculture at Ngõn Restaurant
Address: 26 Tran Huang Dao Street

Day 2- Tuesday November 8

9:00 4. Human Dimensions: vulnerability, impacts, adaptation

- Expansion of rubber in Mainland Southeast Asia: What are the prospects for small holders? - Jeff Fox, East-West Center
- Teak, rubber and agroforestry - Jay Samek, Michigan State University
- Detecting agricultural expansion in Laos using a 10 years' time-series of MODIS satellite imagery - Cornelia Hett, Centre for Development and Environment (CDE), University of Bern, Switzerland
- Vulnerability, Impacts, Resiliency, and Adaptation in the face of Climate Change: Farming Systems' Transitions in Vietnam's North Central and Northwestern Mountains - Stephen J. Leisz, Colorado State University.
- Water resource and ecosystem in Lancangjiang-Mekong river - Gaohuan Liu, Chinese Academy of Sciences, Beijing

10:20 Break

10:40 4.1 Human Dimensions continued (15 min)

- Mapping peri-urbanization in the Red River Delta - Miquel Castrence, East-West Center, Hawaii
- China's urbanization and sustainability under climate change - Peilei Fan, Michigan State University
- Multi-scale and multi-sensor analysis of Urban Cluster Development and Agricultural Land Loss in China and India- Qingling Zhang, Yale University
- Use of remote sensing to reduce uncertainty in environmental policy in SE Asia (especially for REDD+) with some remote sensing examples from Malaysia - Daniel Friess, National University of Singapore

11:40 5. Poster Session

12:00 Lunch

1:00 Peri-urban processes field trip Jeff Fox - Coordinator

We will visit three communes north of Hanoi, one representative of a fairly traditional agricultural area, one of an urban area, and one of a rapidly changing area with mixed agricultural and urban characteristics.

Day 3- Wednesday November 9

9:00 6. Carbon Monitoring, Verification and Reporting

- Introduction - Jay Samek, Michigan State University
- Activities for REDD and MRV in Vietnam - Do Xuan Lan, Ministry of Agriculture and Rural Development
- Afforestation/Reforestation Project based carbon - Phung Van Khoa, Vietnam Forestry University
- Indonesia REDD and Carbon in Indonesia -Rony Bishry, The Agency for the Assessment and Application of Technology

10:30 Break

11:00 6.2 Carbon Theme continued (20 minutes)

- The Inpang Network Carbon Bank Project - Usa Klinhom, Mahasarakham University
- Laos PDR REDD + activities - Sithong Thongmanivong, National University of Laos

11:40 Discussion (Chair: Dave Skole)

12:30 Lunch

14:00 8. Panel: Perspectives on Regional LCLUC Research Priorities: Sample national perspectives (5 minutes)

Vietnam - Lan Do Xuan, Ministry of Agriculture and Rural Development

Thailand - Chetphong Butthep, National Research Council of Thailand (NRCT)

Myanmar - Thiha, Walai Rukhavej Botanical Research Institute, Mahasarakham University

China - Heqing Huang, Chinese Academy of Sciences

Laos - Thatheva, Saphangthong, CSI, Ministry of Agriculture and Forestry

Indonesia - Wardoyo, FS on REDD+ Project for Japanese Investment

14:45 Plenary Discussion (Chair: Chris Justice)

15:15 Break

15:45 **Session 9. Synthesis discussion** - Chris Justice

16:15 **9.1 Findings of the Workshops.** Dave Skole, MSU

16:30 **9.2 Meeting Wrap Up.** Garik Gutman

16:45 **Close of Session 2**

Session 3- Training Workshop- November 10-11

Peri-Urbanization training (Hanoi University of Agriculture)

Carbon training (Forestry University of Vietnam)