DRAFT AGENDA, version <u>3</u> (Nov <u>10</u>, 2008)

Workshop on Monsoon Asia Tropical Forest <u>Carbon</u> Dynamics and Sustainability

Jan. 8 -11 (Thurs.-Sun.), 2009, Khon Kaen, Thailand

Website: http://tbrs.arizona.edu/tropical-asia

General Topics:

- Carbon dynamics in SE Asia, spatial (geographic) and temporal distributions of major pools and fluxes.
- Trends and shifts in seasonality in the tropics and its relationship to carbon fluxes, climate, and disturbance.
- Synthesis and scaling of flux tower measurements to regional scale with satellite data and models.
- Ecosystem processes, controls, feedbacks, and interactions with land use activities and disturbance, drought, fire, climate.
- Future dynamics and scenarios of carbon: forest vulnerability, degradation, resilience, and sustainability.
- Summaries of recent, ongoing or planned programs and projects that address the above topics in SE Asia.

Goals and Benefits:

1) Strengthened communication and collaboration between researchers/students in SE Asian countries and their counterparts in the U.S. and Japan on policy-relevant science issues concerning carbon source/sink dynamics in tropical forests and their relation to local human activities (e.g., fire, logging, climate variability/change and forest management).

2) Genesis of plans for new international research collaboration(s) on the above topics among SE Asian, U.S., and Japanese and other interested researchers that will enhance capabilities for carbon cycle science and informed policy development and decision making in the SE Asia region.

Products:

- Reports and journal articles
- Funding and collaboration opportunities
- Plans for future meetings and special sessions at scientific conferences

Day 0, January 7th, 2009 (Weds, night)

- Participants arrive in Bangkok, Thailand to participate in Field Trip.
- Stay at Rama Gardens Hotel –35 rooms reserved. Note: participants who will not be participating in the field trip on Jan. 8 should arrange to arrive independently at the meeting location (Khon Kaen, Thailand) on Jan. 9 by 1pm.

Day 1, January 8th, 2009 (Thurs).

- Brief tour of Asian Institute of Technology (AIT) Geoinformatics Center and MODIS receiving station (Manzul and Lal).
- Travel by bus/minivan to Sakaerat Flux Tower site near Khao-Yai National Park, with overnight stay in or near the park. (Temperatures will be cool, and resort hotel location not deviate significantly from road to Khon Kaen)
- Short talks about site and tower (Kondo, Maeda, Panuthai?).

Day 2, January 9th, 2009 (Friday). Travel by bus/minivan to workshop location at Mekong Institute in Khon Kaen, Thailand. Start ¹/₂ day workshop activities

• Lunch and check-in to rooms

Session 1 (3-6 pm) Introduction and Objectives

- o Dr. Suchat Katima, Director of Mekong Institute
- o Dr. Thongchai Charuppat, Director of GISTDA (Thailand Space Agency)
- Mission, goals, and structure of the Workshop (Alfredo Huete, Dennis Dye, and Yoshifumi Yasuoka).
- Group Introductions
- Coffee Break
 - Speaker from the Global Carbon Project office (**TBD**)
 - Potential Speaker from MAIRS program (Monsoon Asia Integrated Regional Study) (**TBD**, **Qi**)
 - Potential Speaker from NASA Land Cover Land Use Change (LCLUC) program (TBD, Garik Gutman?)
 - Invited Talk on History and Dynamic transformations in the Mekong Region / SE Asia (**TBD, Patma Vityakon**, Khon Kaen University)
- Welcome Dinner with traditional culture show

Day 3, January 10th, 2009 (Saturday).

Session 2 (8-10am) Regional and National Programs in Southeast Asia

- Asian Forest Carbon Monitoring System/ REDD (Yamagata)
- AsiaFlux program (**Dr. Joon Kim**, chair of AsiaFlux)
- Current SE Asia Flux Towers and Research in Tropical Forests and Peatlands (**Hirano, chair of JapanFlux**)
- National Programs, Indonesia (Fadli)
- National Programs, Malaysia (Rahim)
- National Programs, Thailand (**Nipon**)

Coffee Break & Poster Display

Breakout Session (10:30-12:00)

- Formulate additional key questions and issues for this workshop.
- Carbon dynamics in SE Asia; major pools and fluxes.
- Flux towers, satellite, models, and ecology in SE Asia: Needs and next steps.

Summary Reports to the Group

Lunch Break (12:00 – 1:30pm) Poster Display

Session 3 (1:30-3:30pm) Global Tropical Ecosystem Processes (lessons learned and intercomparisons)

- Global modeling of carbon and NPP (Nemani)
- Flux tower research in the Amazon (**Coupe**)
- The Amazon Model Intercomparison Project (MIP) (Saleska)
- Tropical phenology in Hawaii & invasives (Miura)
- Radiation controls on tropical forest functioning in Borneo (**Dye**)
- Tropical forest seasonality, coupling flux tower and satellite data (Huete)

Coffee Break and Poster Display

Breakout Session (4:00-6pm)

- Pan-tropical discussions
- Phenology in tropical systems
- Ecosystem processes, controls, feedbacks, and interactions

Summary Reports to the Group

Poster Display

• Group Dinner (7pm)

Day 4, January 11th (Sunday)

Session 4 (8-10am) Regional scaling, land-use, sustainability

- Integrative studies and future regional assessments of Carbon dynamics and drivers (**Sawada**)
- Modeling Tropical C-Fluxes/Dynamics in SE Asia (Ito)
- Carbon models and land use change (Xiao)
- Regional flux studies in SE Asia (Saigusa)
- Climate variability and forcings on Carbon dynamics (Kobayashi)
- Forest disturbance, land use, fire, and regrowth (**TBD**)

Coffee Break and Poster Display

Group conclusions and recommendations (10:30-12:30pm)

- Identify unique opportunities for collaboration, projects, funding
- Land use and climate interactions with tropical forests
- Future dynamics and scenarios of carbon; forest degradation and resilience.
- Discussion of conclusions from breakout topics

Lunch and closing ceremony 12:30-2:00pm

****Note that we have the option to extend this workshop with another 2 hour session after lunch, either to incorporate additional talks or based on a perceived need from discussion at the workshop.

Optional Afternoon Excursion

Final Report Writing (Workshop organizers)

Airport Departures from Khon Kaen, Thailand

Poster Ideas:

- Forest Dynamics in SE Asia (Inventories, Biometry, Demography) (Abdullah)
- Regional satellite data availability (GISTDA)

January 12-15, 2009

NASA/ MAIRS LCLUC Tropical Asia Workshop http://lcluc.umd.edu/Thailand_tropics.asp

January 15-17, 2009

Field Trip of Land Use Systems along East-West Economic Corridor, from Khon Kaen, Thailand to Laos and Vietnam.