

**Report on the
Land Use Science Priorities & MAIRS
Breakout Session**

**Qi & Ailikun served as co-chairs;
Henebry served as rapporteur.**

**Of the 24 participants:
13 were from institutions in SEA countries and
11 were from institutions outside the region.**

Session started with brief overviews

❖ A. Huete on last week's NSF Forest and Carbon workshop

❖ J. Qi: Tell us what are the key issues/priorities related to:

- ✓ Data
- ✓ Products
- ✓ Information
- ✓ Science
- ✓ Management

❖ Ailikun: on MAIRS

- ✓ Three keys areas: (1) Land Cover; (2) Aerosols; (3) Regional Modeling and their interactions
- ✓ Challenges from data, modeling, theory
- ✓ MAIRS seeks to be international program and build a pan-Asian network
- ✓ East Asian network is secure, but southeast Asian network needs POCs.
- ✓ Training issues and capacity building are key.
- ✓ Data sharing is key to network capacity building.

Discussion

How MAIRS can incorporate research and people in SEA? What is the protocol?

Bilateral agreements have been a more common practice than multilateral agreements, but this impedes regional cooperation/collaboration.

MAIRS is willing to explore the regional network through:

Regional Data Centers

- (1) Identify POCs and interested parties;**
- (2) Gather and serve metadata;**
- (3) Provide website that enables metadata uploading;**
- (4) Translate extant metadata into English.**

Regional Research Centers

- (a) Identify POCs and interested parties;**
- (b) Assemble list of recent and current research projects;**
- (c) Identify research priorities and key knowledge gaps.**
- (d) Provide training to SEA scientists.**

MAIRS needs executive committee composed of representatives from major national/regional entities to facilitate MAIRS capacity building.

Challenges 1

- ❖ Many data initiatives currently in the region – need to be aware of these.
- ❖ Knowledge gap between science understanding and decisionmaking requirements → more decisions required per unit time, due to rapid pace of development within the region.
- ❖ Need land cover change map for entire region.
- ❖ But visual interpretations required to keep pace with rapid change. Computer technologies have limitation.
- ❖ A key current problem is mismatch between global land cover data sets and local land cover knowledge.
- ❖ Models can serve as regional integrators → Need for training in modeling.

Challenges 2

❖ View from SEA START:

- ✓ Leadership gap in SEA due to time-constraints, rather than lack of competence. Leaders need time to push for objectives.
- ✓ Lack of regional policies make it difficult to address regional issues.
- ✓ Scientific goals alone are insufficient to motivate.
- ✓ Need training to improve scientific communication, publishing articles, etc.
- ✓ Land use change modeling and advanced observation technologies are priorities.

MAIRS Next Step

– Action Items

- Form an Executive Committee to more effectively integrate the MAIRS with local networks/researchers/countries
- Regional Data and Research Centers (detailed later)
- Workshops and summer schools –
 - Workshop on training – Use of Remote Sensing Data and Models for Land use and cover change dynamics
 - Summer school – Combine Atul Jain's model training and summer school training in different countries – develop a schedule for different countries, including all countries in the region, India, Thailand (MI), Vietnam, Malaya, Indonesia, etc. Write a proposal to APN/NSF/MAIRS to conduct these workshops and training

MAIRS Next Step (*cont.*)

- Implementation
 - Draft initiatives of the Data and Research Centers
 - Initial workshop in the region
 - Secure funding for initial activities for Centers' development
 - Development of focus groups
 - Mega-city group
 - Dryland group
 - Mountains group
 - *Modeling group (Drs. H. Tian, X. Zeng, Atul Jain)*