

Regional, Multi-scaled, Multi-temporal Land-use and Land-cover Data to Support Global Change Research and Policy-making: a SEARRIN LUCC Project (APN 2003-08)

Project Leader:

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APN funding:

US\$ 75,000

Participating countries:

Participants from the following countries were funded: Cambodia, Indonesia, Lao P.D.R., Malaysia, P. R. China, Philippines, Thailand, USA and Viet Nam.

A representative of APN, Dr. Anond Snidvongs (APN Liaison Officer for Southeast Asia), was funded by APN directly.

Each SEARRIN country team contributed in-kind funds to support the APN project. Satellite data and field equipment were provided by the Center for Global Change and Earth Observations at Michigan State University with funding support from NASA.

Brief introduction and background:

Over two years, this project will develop a suite of scientific data products derived from satellite data for Southeast Asia. A year 2000 forest cover baseline dataset for Indochina will be validated in collaboration with scientists in each of the participating eight regional countries. In addition, continuous field measurements of forest cover in eight case study areas will be developed through field validation and calibration techniques. These advanced techniques in remote sensing analysis and *in situ* fieldwork are transferred to project scientists through annual training in the region. The results of these analyses will be published online using Internet technologies in web-GIS, and will be open to the public for use as a decision support tool in natural resource management. This application provides a foundation for additional data sets derived through analysis and modelling. The project is also working towards establishing regional data nodes at SEARRIN institutions in Malaysia, Philippines and Thailand.

Outline of activities conducted:

- Training workshop for Web-GIS at the Geo-Informatics and Space Technology Development Agency in Bangkok, Thailand (July 2003);
- Project workshop and training of SEARRIN scientists in Hanoi, Viet Nam (August 2003);
- Regional forest cover validation;
- Case study fieldwork and analysis;
- Project website development;
- Regional Spatial Decision Support System (online web-GIS); and
- Outreach brochure (preliminary).

Outcomes and products:

The outcomes and products are still in development with respect to the overall goals of the two-year project. Training material was developed and presented at the training workshops in Bangkok, Thailand (GISTDA) and in Hanoi, Viet Nam. A project web page is online that provides access to version 0, online web-GIS. A decision support system and a preliminary outreach brochure have been developed. Web site URL: http://www.globalchange.msu.edu/SEARRIN/APN_2003_08/

Future directions and follow-up work:

The project direction and work for the final year includes the completion of product development, the installation of a regional node in the Philippines, the full deployment of a multi-scaled, online spatial decision support system, and the production and dissemination of outreach materials. The following is an outline of the specific tasks:

- Completion of validated regional forest cover product;
- Completion of fine-resolution (30-meter, Landsat ETM+) validated case study land use/cover and continuous fields of forest cover analyses – multi-temporal;
- Completion of coarse resolution (~1-kilometer, SPOT Vegetation) forest fractional cover from 30-day composites for 1999-2000;
- Development of a Regional Node in NAMRIA, Manila, Philippines;
- China field validation;
- Development of an online web-GIS decision support system with geospatial datasets;
- Final project meeting in Phnom Penh, Cambodia; and
- Publications, documents, hard-copy maps, CDRoms, etc.