

# SAWADA LAB.

## [Global Environment Observation]

International Centre for Urban Safety Engineering

<http://stlab.iis.u-tokyo.ac.jp/~sawada/>  
**Environment Informatics**

### Diagnosis of Earth Environment

#### 地球環境の診断

Satellite and airborne remote sensing technology enables us to observe various phenomena of earth environmental changes. Our laboratory utilizes these observed data for detecting abnormalities as well as for zoning environmental conditions in various scale, from local to global. Seasonal changes of vegetation greenness, temperature on ground and sea surface, rainfall and snow coverage, and atmospheric contamination are barometers of earth environmental condition.

Information extraction: Development of data processing technologies for extracting appropriate information on land/sea/atmosphere based on the characteristics of sensor systems and environmental conditions.

South-East Asia: Development of automatic deforestation detection and automatic flood detection/



Fig.1 Automatic deforestation detection

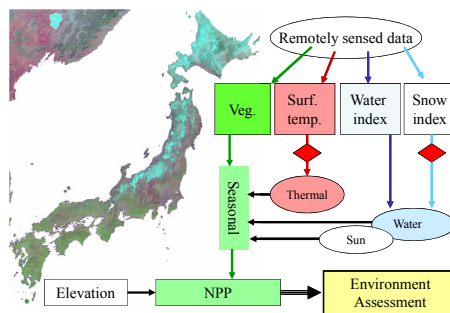


Fig.3 Satellite environment indices

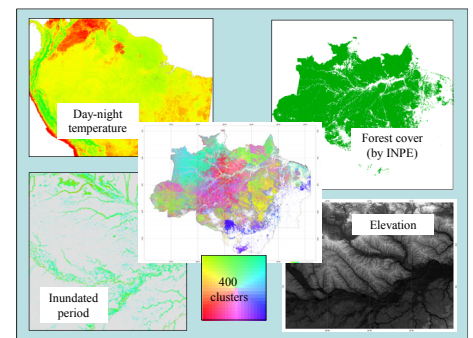


Fig.5 Forest environment map of Amazon

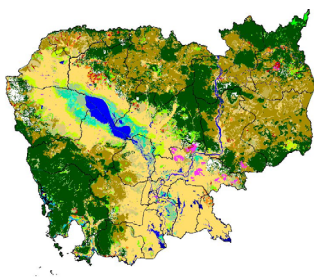


Fig.2 New forest map in Cambodia

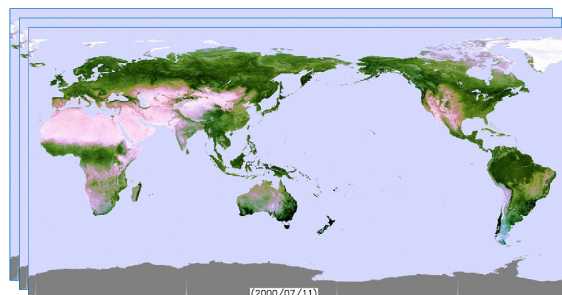


Fig.4 Global noise-free dataset of 10 day interval

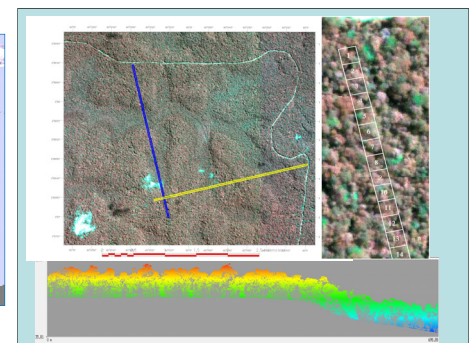


Fig.6 Forest structure by IKONOS and LiDAR