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## **REPORT FROM WG2 (AP-BON)**

# AP-BON VISION

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- × **To establish a Coordinated Asian Network that gathers and shares information on biodiversity and ecosystem services**
- × **To provide tools for data collection, sharing/exchange, analysis, and synthesis/integration, and**
- × **To contribute to improving ecosystem management, sustainable use of biodiversity and human well-being**

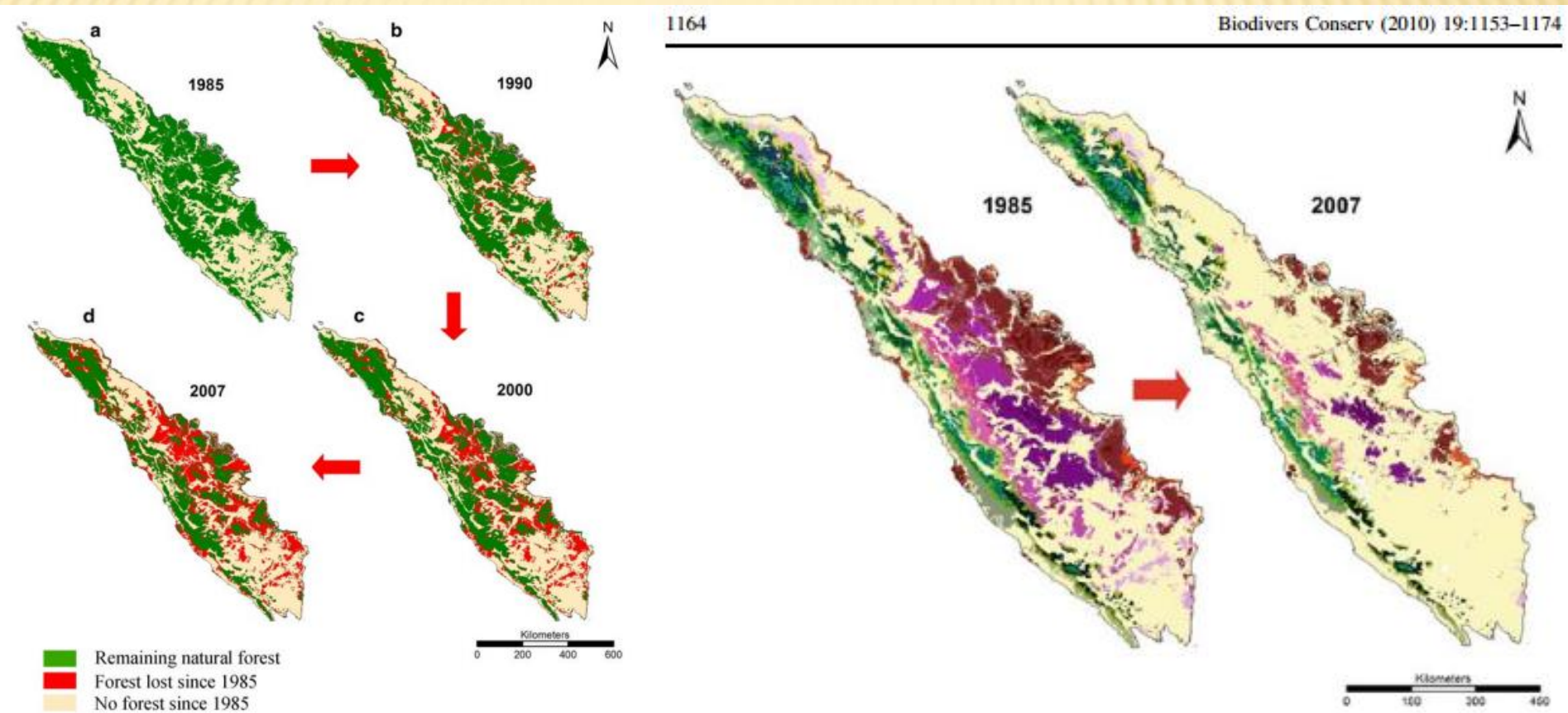
# AP-BON MISSIONS

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- ✘ Observing and analyzing changes in biodiversity over time.
- ✘ Improving delivery of biodiversity information and services to users, particularly decision-makers.
- ✘ Facilitating linkages among many countries, organizations and individuals contributing to biodiversity observations.
- ✘ Identifying gaps between existing biodiversity observation systems and promoting mechanisms/projects to fill them.

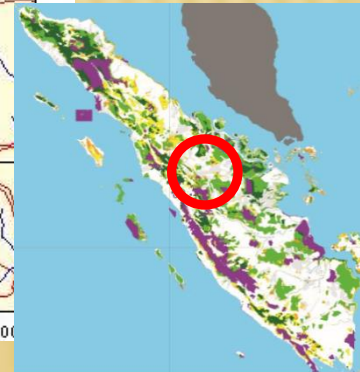
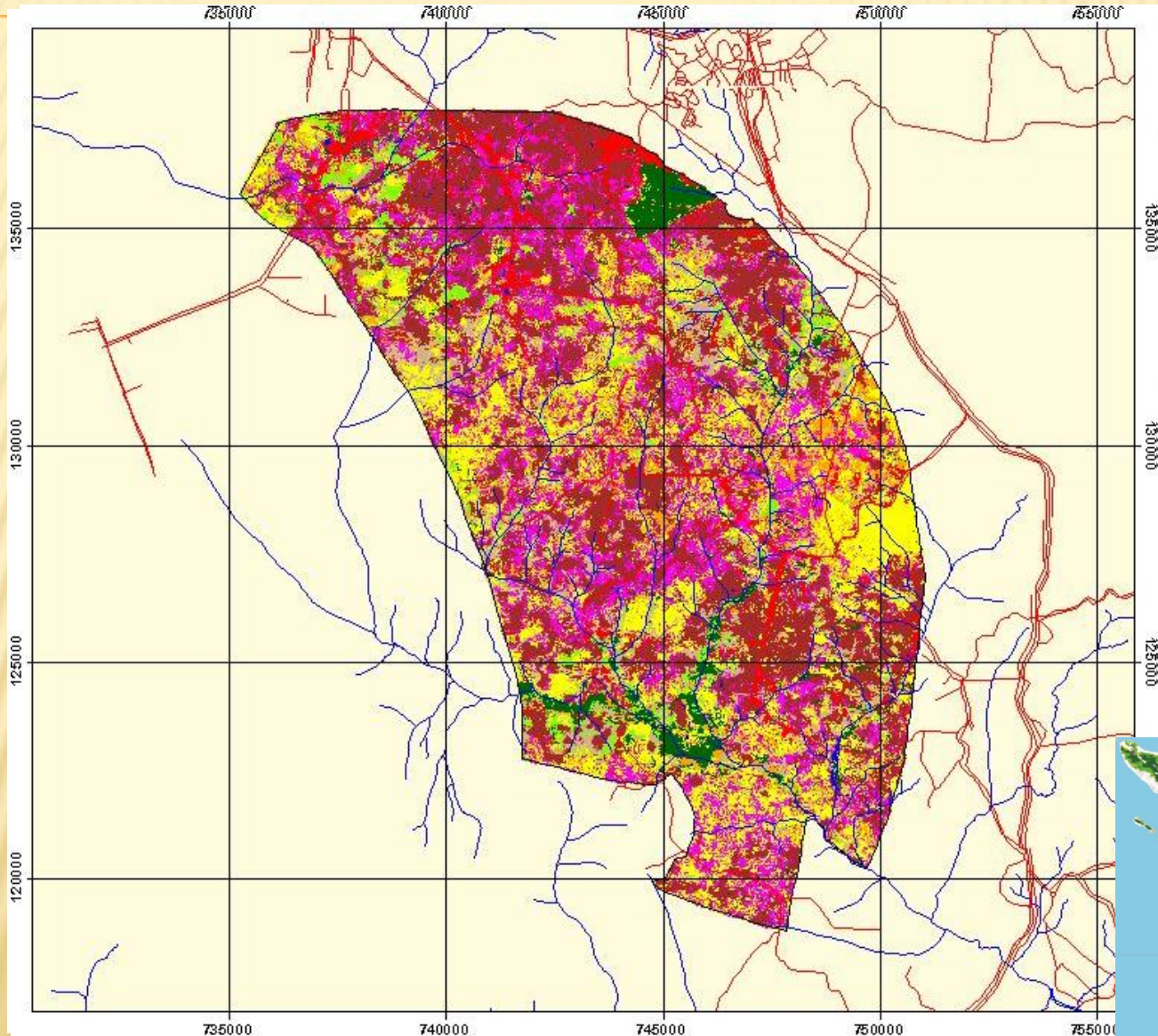
# WE LEARNED ABOUT SERIOUS FOREST LOSS

Satellite data have been successfully used to document forest loss.

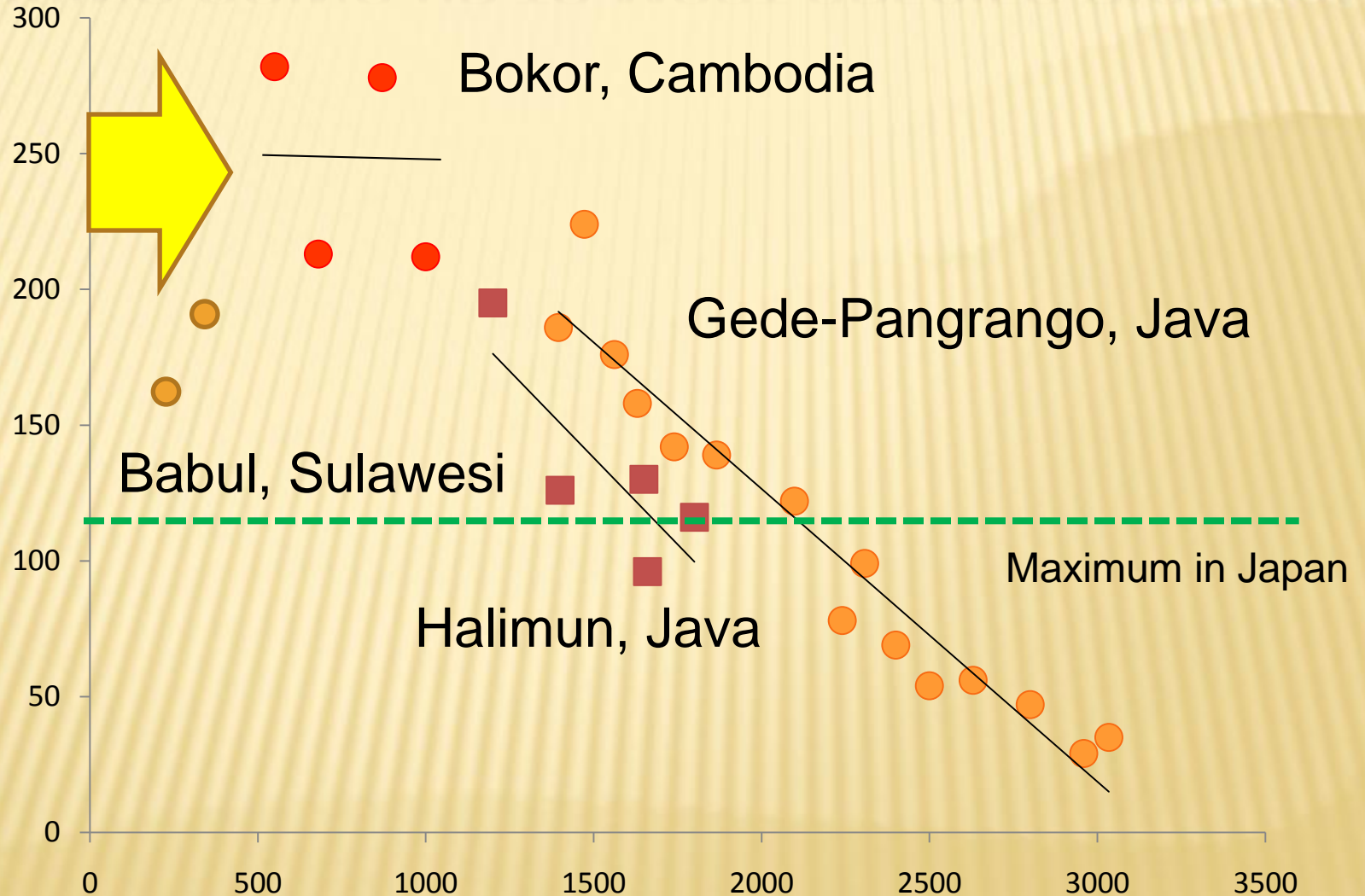


# Balairaja Nature reserve, Sumatra

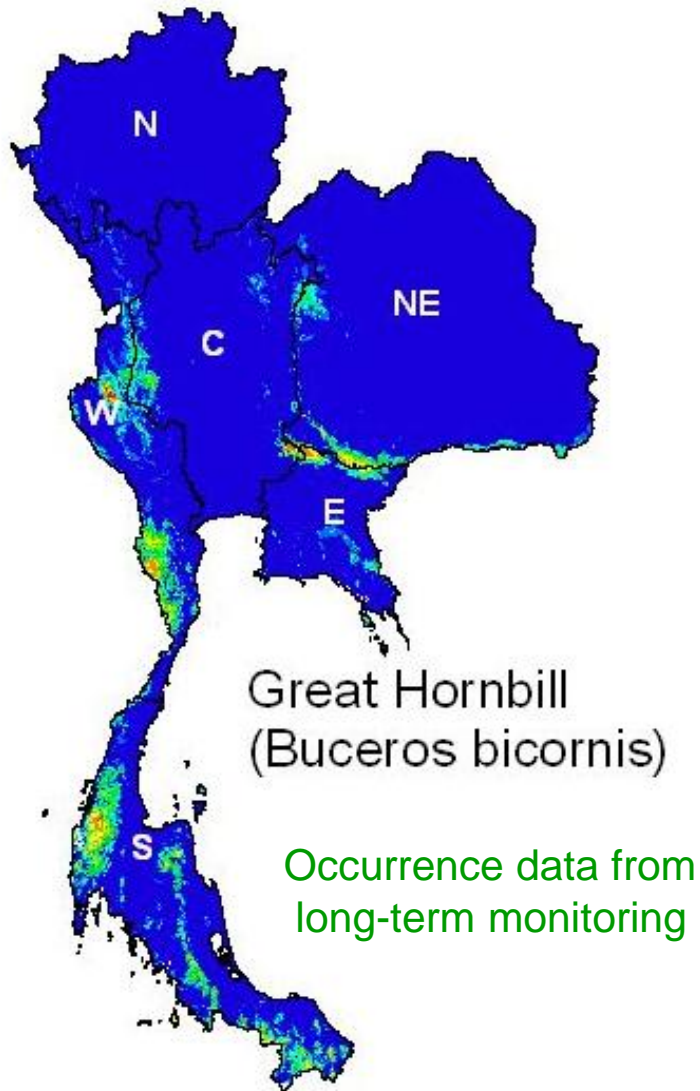
Slide of Lilik Budi Prasetyo, Bogor National University, Indonesia



# LOGGING GOING UP TO MOST SPECIES-RICH ZONE



# HABITATS OF MANY ANIMALS BEING LOST



Hornbill of Thailand  
Slide of Yongyut TRISURAT



## National level

- 36,131 km<sup>2</sup>; 7.05%

## PAs

- 13,053 km<sup>2</sup>; 36%

# SYSTEMATIC APPROACH

## From in-situ biodiversity monitoring to regional biodiversity assessment

- ❖ **Plot-based approaches**  
Design the plots to match Remotely sensed data resolution
- ❖ **Transect-based approaches**  
Relate biodiversity abundances with environment gradients
- ❖ **Nationwide biodiversity and ecosystem survey**  
Biodiversity and habitat mapping to link plots to regions

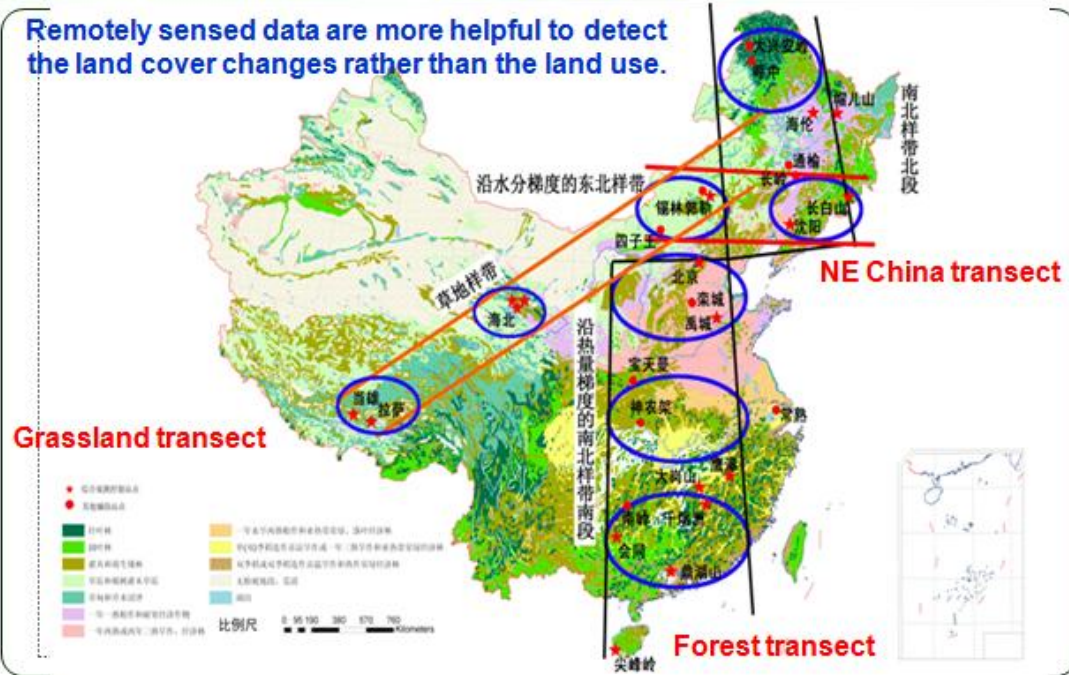
By Xiubo Yu, CERN



# PLOT AND TRANSECT STUDIES

## CERN based Transects

Remotely sensed data are more helpful to detect the land cover changes rather than the land use.

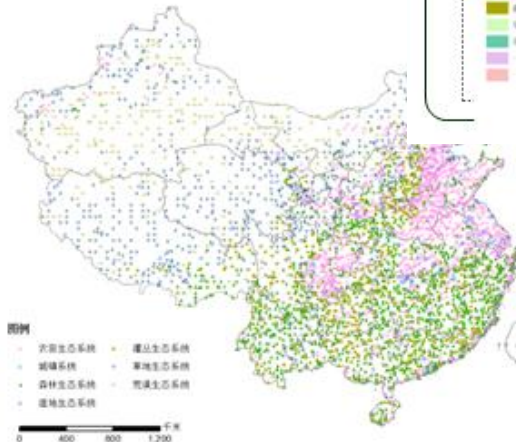


## In-situ Biodiversity and Nationwi

5000 plots

Location map for planned plot

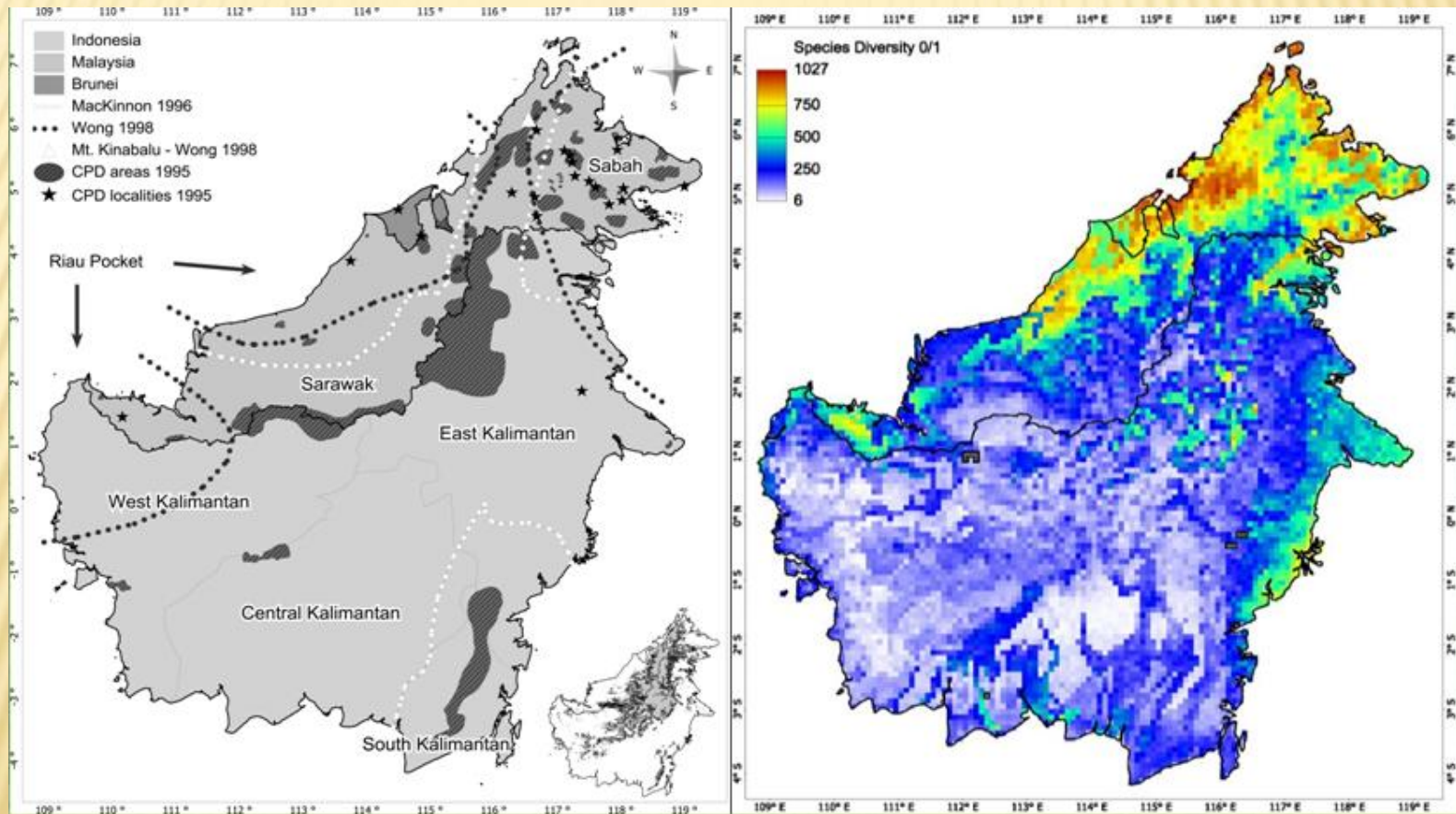
130 sites



By Xiubo Yu, CERN

# SPECIES RICHNESS/ENDEMICISM IN BORNEO

Specimen-based approach with niche modeling

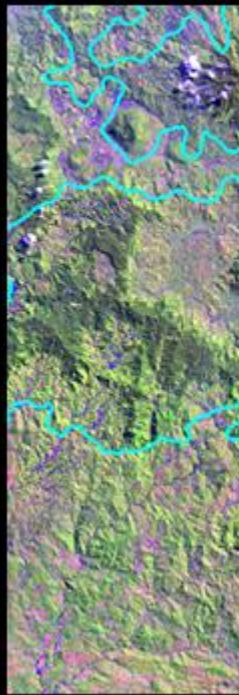


Based on distribution models of 2,273 spp (102 families; 44,106 specimen records):  
Raes et al. 2009 *Ecography* 32:180-192

# WORK TOGETHER IN CORE-SITES/SUPERSITES

## Doi Inthanon National Park, Thailand

Case 3 :  
 Javan Gibbon Distribution at Mt. Halimun  
 Salak National



Mountain forest

High mountain zone

Desert zone

Grass

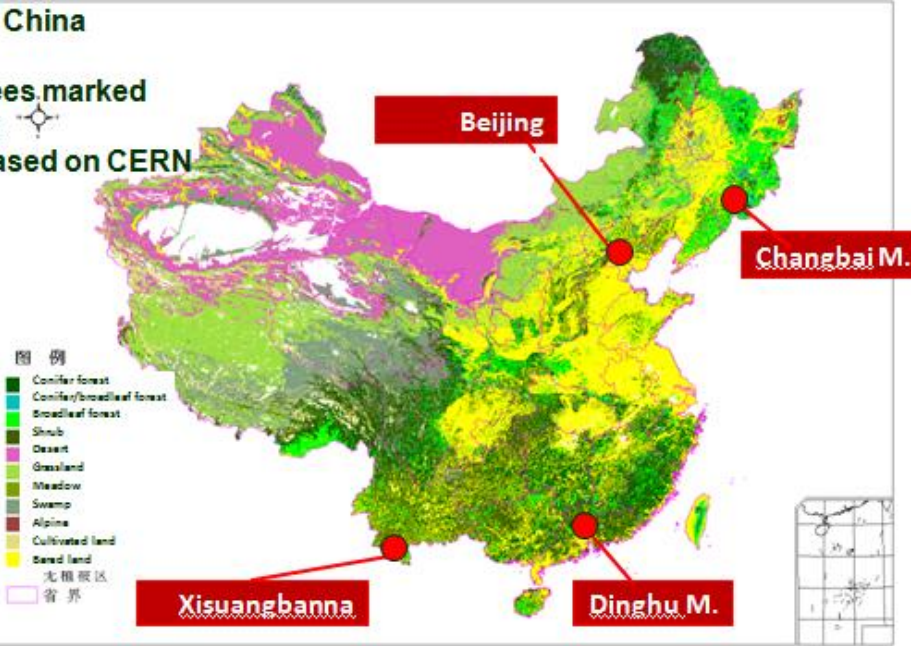
DDF+

GISTDA

## China Forest Biodiversity Monitoring

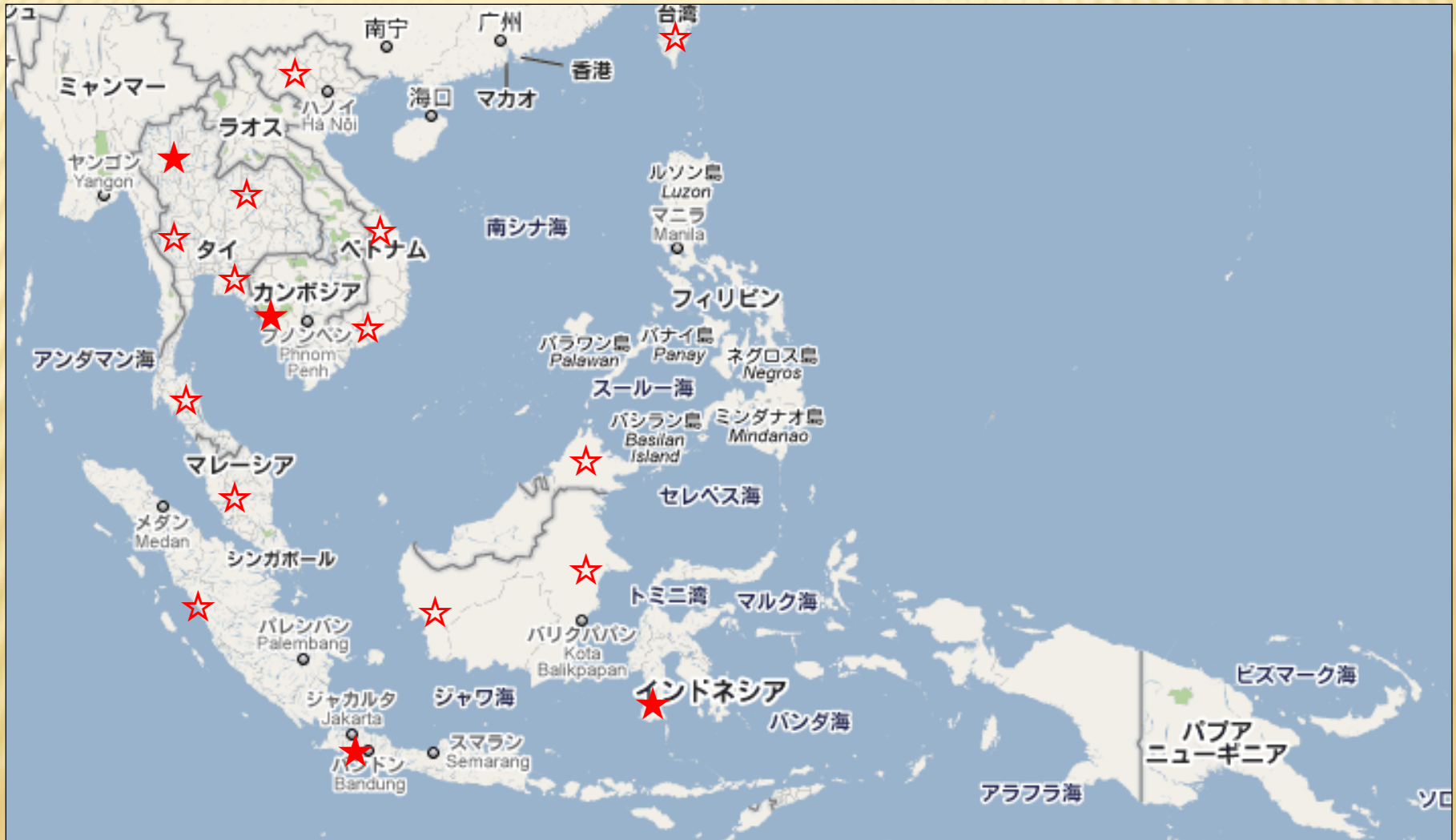
CASE 1

8 plots in China  
 >20 ha  
 600,000 trees marked  
 in which :  
 4 Plots based on CERN



# CANDIDATE MOUNTAINS FOR TRANSECT SURVEYS

Collaboration of Asian scientists is inevitable



# LARGER PROTECTED AREAS NEEDED

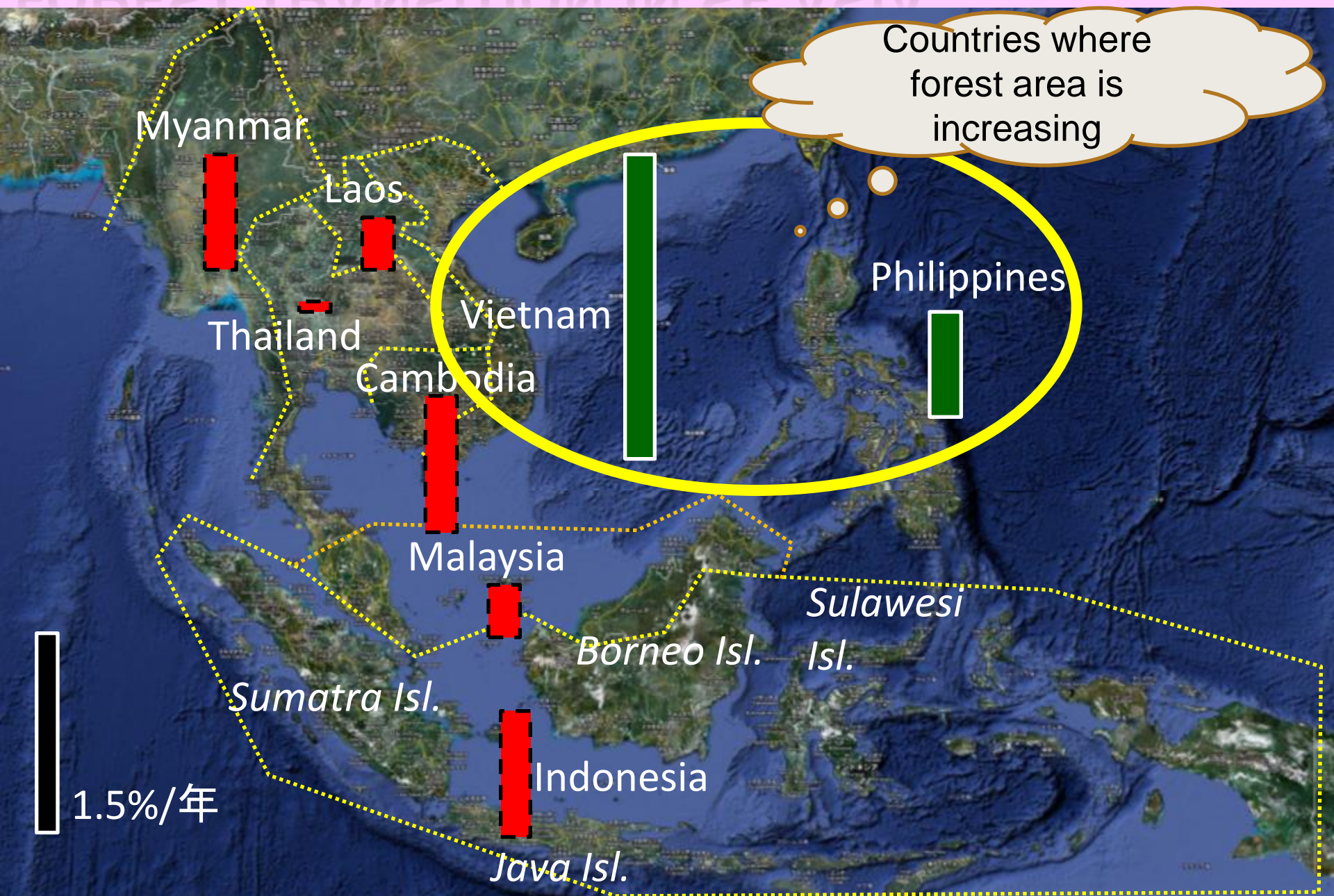
AT 1, 5, 11 Necessary forest conservation to meet Aichi Target of 17%



Protected – forests within protected area

Source of data: Forest Resources Assessment 2010

# FOREST TRANSITION IN SE ASIA



Countries where forest area is increasing

1.5%/年

# ACTIVITIES TO ACHIEVE “GREEN GROWTH”

- ✘ Assessment of forest/species/services loss
  - + Plots/transects/specimens + fine-scale remote sensing + GIS
  - + Coordinated assessments in core-sites/supersites
  - + Baseline for REDD+
- ✘ Gap analysis for areas to be protected
  - + Prioritizing conservation efforts
- ✘ Scenario analysis
  - + Considering socio-ecological changes
  - + To minimize loss before forest transition