

Summary of  
Research Group Session 3:  
Management (RG3)



The Experimental Forest of NTU

### Long-term Monitoring of Reforestation at Cultivation Abandoned Forestland

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Speaker: Sheng-Feng Lee

禁煙

## LIU Shing-Wang (NTU)

### Long-term monitoring of reforestation at cultivation abandoned forestland

- Long-term monitoring of reforestations at cultivated lands
- Forestland conservation project in NTUEF from 2008
- Past records and spot survey at 172 plots to check survival rates & growth of seedlings
- 57% of cultivation abandoned forestlands were reforested by various tree species- not for timber production
- Survival rates were enough high
- Calculating seedling growth and also carbon sequestration
- Seedling of Japanese cedar is not supplied now, planting of cedar has been stopped for about 20 years, they try to import the seedlings of cedar

## IOKI Keiko (UMS)

# Participatory land use planning in Kinabalu Ecolinc Zone: The case of Wasai village

- Participatory land use planning in Kinabalu Eco-linc project for 2 protected parks by GIS-based multi-criteria analysis
- Study site: Wasai village- villagers depend on agriculture activities
- Zoning based on 3 criteria & 5 indicators, and 3 land-use activities
- Making final zoning map with 3 zones of conservation, compatible use and non-regulatory zones
- Held workshop for local people before and after the project
- Bee farming in zone 1 was proposed for both environment conservation and economical activity

# DUANGSATHAPORN Khwanchai (KU)

## Current status and causes of deforestation in Thailand

- Status and causes of deforestation and degradation in Thailand
- Cause of deforestation: encroachment like agricultural crop and infrastructure development like road construction
- Cause of degradation: illegal logging and uncontrolled forest fire
- Conservation efforts have been made by means of various policies since 1985
- Continuous monitoring system for sustainable forest management by 888 permanent (hidden) monitoring plots by 1.5 km grid sampling
- Evaluation of conservation using criteria & indicators for sustainable forest management: 7 criteria & 53 indicators (ITTO)

## YOUN Yeo-Chang (SNU)

### Demand for forest ecosystem services : case of SNU Forests

- Forest ecosystem services in southern SNU forest
- Conflict between southern SNU forest & local community about property rights, maple sap production, ecotourism, etc.
- Study area: 114 households in 5 villages near southern SNU forest
- As a result of questionnaire analysis, particularly demands for provisioning (and cultural) service(s) were high among several ecosystem services, which lead to direct income for local communities
- According to respondents' characteristics, the demand for ecosystem services differs

## OWARI Toshiaki (UTHF)

Creating a network of long-term experimental plots within Asian University Forests

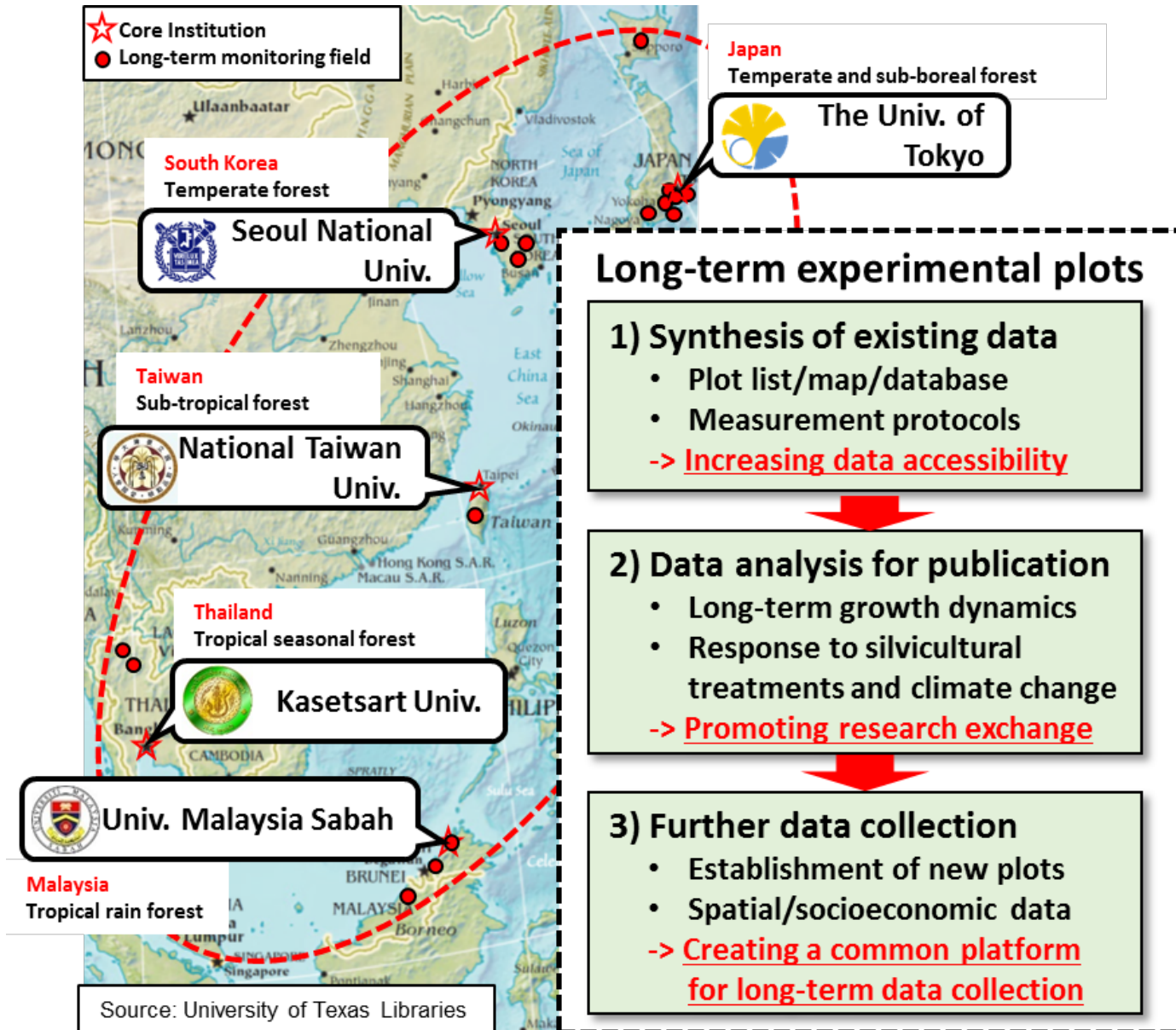
## FUJIWARA Akio (UTF)

Metadata database for experimental permanent plots

- Networking long-term experimental plots
- Based on long-term plot observations in Europe, stand characteristics were getting higher recently than previous status
- Research collaboration about long-term monitoring in Asian countries
- UTHF has 95 permanent plots in un-even aged mixed forest
- UTCBF has 10 plots in even-aged plantation forest of Japanese cedar and cypress
- UTCF has 32 plots in even-aged plantation forest of cedar, cypress, larch, etc.
- UTF provides various ecosystem services via 7 local forests.
- Metadata database of experimental permanent plots using Filemaker software



# A Conceptual Diagram on the Network





# Research collaboration with a focus on long-term experimental plots

- NTU: 3 plots in plantation forest of various species including Japanese cedar
- UMS: 7 sites in montane, acacia and indigenous plantation, primary, secondary, dipterocarps forests
- About Japanese cedar, it is worth jointly reviewing previous research findings in Japan, Taiwan and Korea
- Plantation can be a keyword for all member countries

# Remote Sensing

## Published data

REMOTE SENSING

Low-cost Remote Sensing

Remote sensing technical sharing

Continuous Monitoring System for Sustainable Forest Management

Internet platform established for PMS database

Forest Zoning

invasive birds monitoring

Landscape Planning

technical method

invasive species prevention

Dendrochronology and its applications

Dendro-chronology

Forest Growth and Yield Modelling

Plantation

Japanese cedar growth in different PPS

Forest Policy & Planning

Legal Situation

Community-based

ECOSYSTEM SERVICES | ECONOMIC VALUE

Carbon Stock Estimation

Carbon dynamics

Carbon

Carbon Accounting

Comparison of Carbon Stock Estimation in plantation forests

Impact of climate variation on Tree growth

Global Warming

Reforestation and Regeneration

Recovery & Restoration

Social & Ecological system

Eco-tourism

FOREST RESTORATION (GROWTH)

Cooperative governance

Carbon Sequestration

REDD+ M&V

Criteria and Indicators for Forest Management

# Potential research topics for further collaboration

- (low cost) Remote sensing incl. UAV, LiDAR
- Carbon (accounting) and global warming incl. carbon credit, REDD+, etc.
- C&I for sustainable forest management
- Zoning and landscape planning
- Plantation forest management incl. growth comparison
- Forest policy incl. ecotourism, cooperative governance, legal situation, Community and land use
- Restoration and reforestation