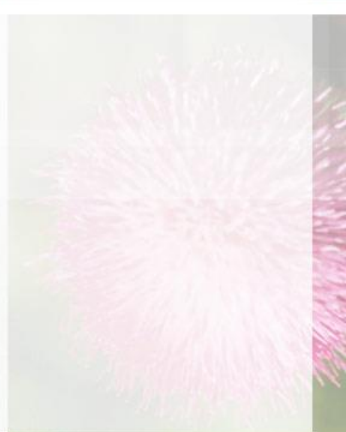




# **SYSTEM OF EDUCATION AND RESEARCH ON FORESTRY AND PAPER IN VIETNAM**

**HOANG VAN SAM, TRAN VAN CHU**  
**Vietnam National University of Forestry (VNUF)**  
**(Email: [samhv@vnuf.edu.vn](mailto:samhv@vnuf.edu.vn))**





A topographic map of Southeast Asia, with Vietnam highlighted by a yellow outline. The map shows the country's geographical features, including its coastline, major rivers, and mountainous terrain. The surrounding region, including parts of China, Laos, Cambodia, and the Philippines, is also visible.

**Vietnam is situated in Southeast Asia.**

**The total land area of Vietnam covers about 330,000 sq. km.**

**Three quarters of the country are mountainous.**

**Forest covers about 41.65% of total country**

**Population: 96 million**

**54 ethnic groups**





**Vietnam has a globally significant proportion of rare and endemic species of plants and animals. An estimated 15,000 plant species with about 8% of known plants are endemic.**



**2018: The forest cover 41.65%  
14.49 million ha).**





**Natural forest 10.25 million ha**





**Plantation 4.24 million ha**



# FOREST IN VIETNAM



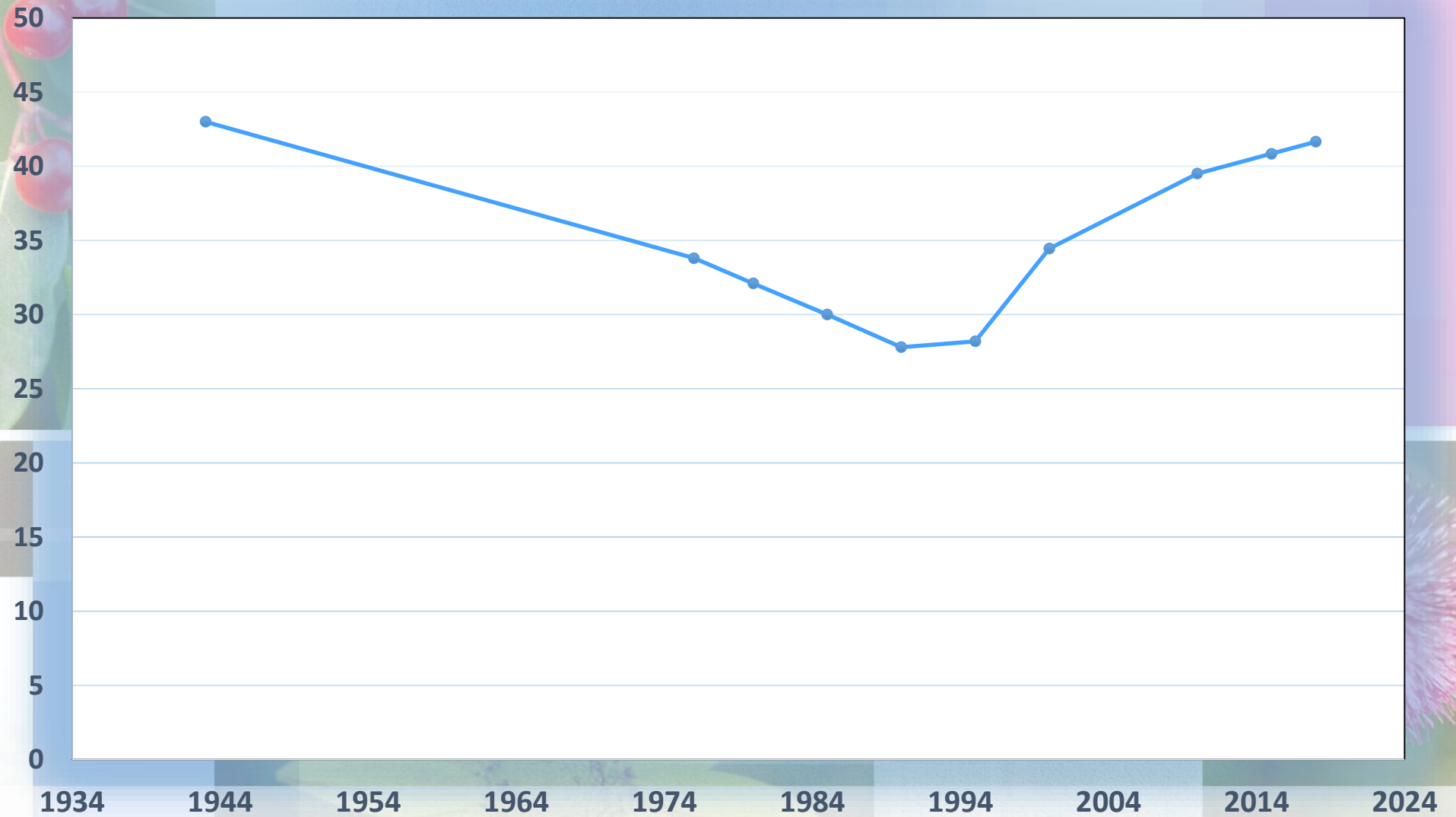
| Year | Area (1,000 ha) |            |        | Coverage (%) |
|------|-----------------|------------|--------|--------------|
|      | Natural         | Plantation | Total  |              |
| 1943 | 14,300          | 0          | 14,300 | 43.0         |
| 1976 | 11,077          | 92         | 11,169 | 33.8         |
| 1980 | 10,186          | 422        | 10,608 | 32.1         |
| 1985 | 9,308           | 584        | 9,872  | 30.0         |
| 1990 | 8,430           | 745        | 9,175  | 27.8         |
| 1995 | 8,252           | 1,050      | 9,302  | 28.2         |
| 2000 | 9,444           | 1,491      | 11,314 | 34.45        |
| 2010 | 10,350          | 3,008      | 13,358 | 39.5%        |
| 2015 | 10,30           | 3.20       | 13.50  | 40.84        |
| 2018 | 10,25           | 4,24       | 14,49  | 41,65        |



# FOREST COVER IN VIETNAM



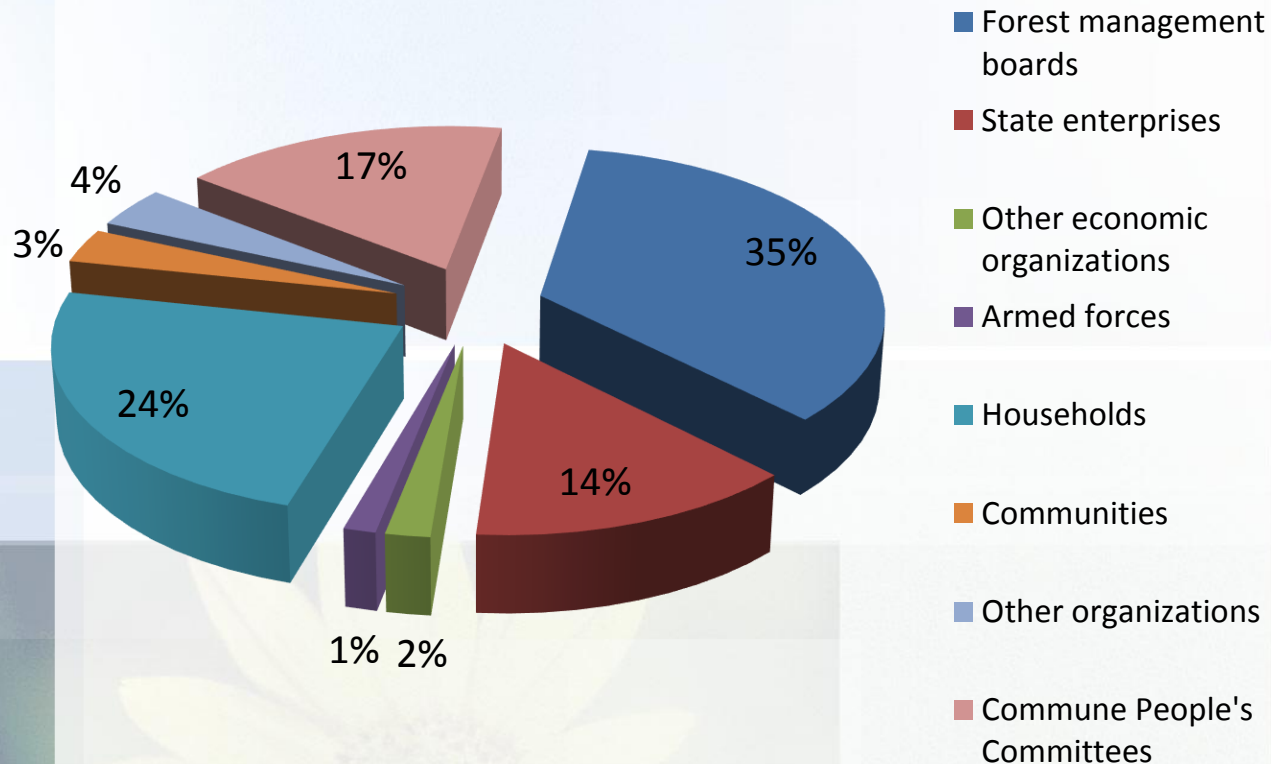
Forest cover





# Forests in Vietnam

In 2019: 14.49 mil. ha, 41.65 % forest cover (MARD 2019).



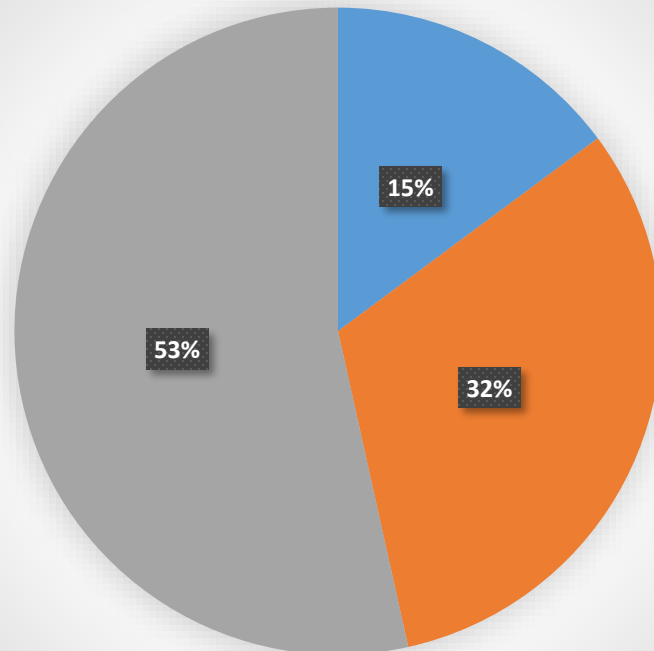
(Source: MARD, 2019)



# Forests in Vietnam

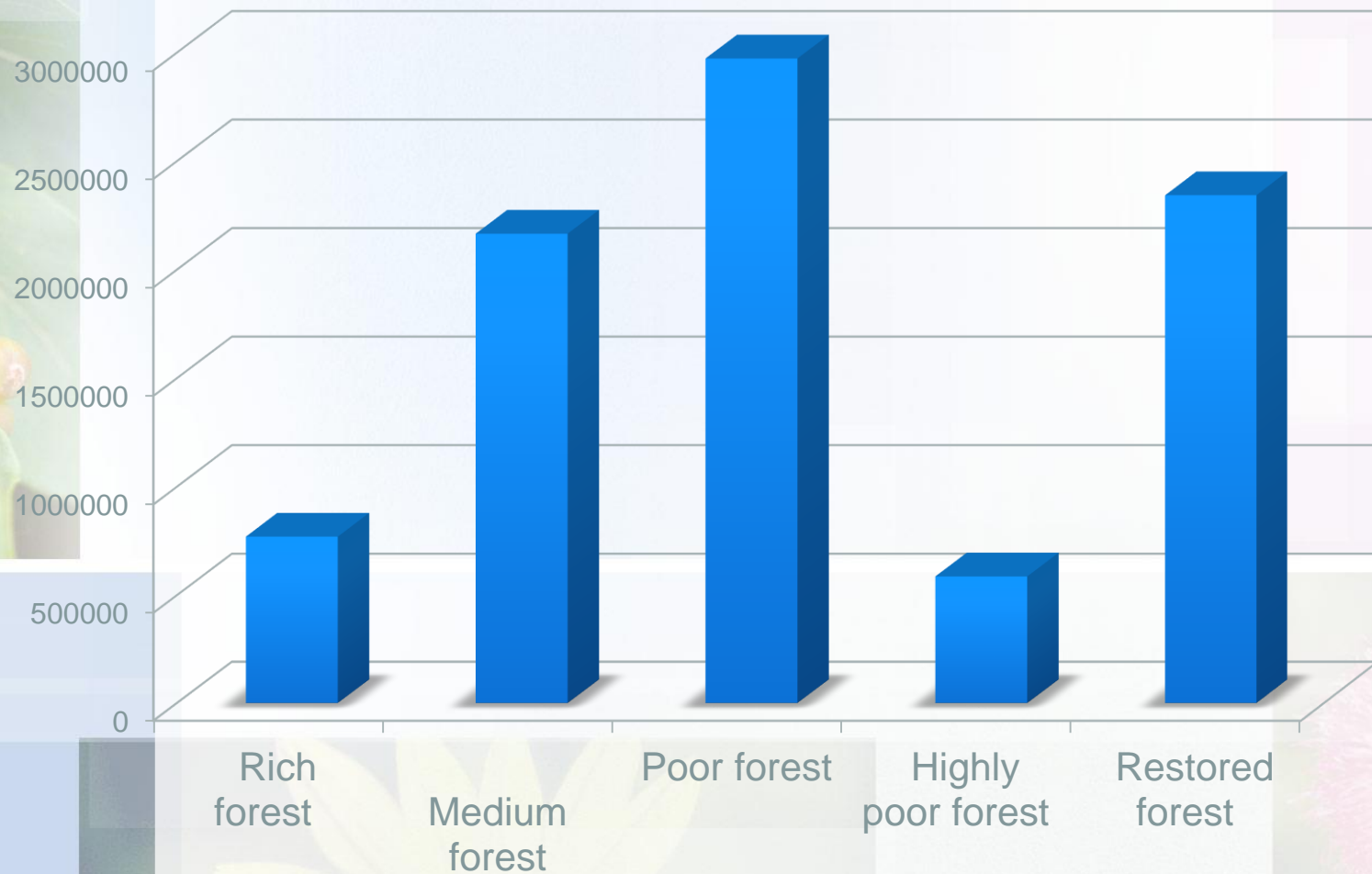
## Forest land divided into 3 categories:

- Special-Use Forest: 2.15 mil. ha;
- Protection Forest: 4.59 mil. ha;
- Production Forest: 7.75 mil. ha.





# Quality of forest



Sources: VNFOREST, 2017

Vietnam National University of Forest









**Hoang Lien Son Range in northwest Vietnam with the highest peaks in the Indochina – Phan Xi Pan rising to 3,143 m. Its forests are the most diverse and most threatened in Vietnam. One third of the country's plant endemism is found in this region**

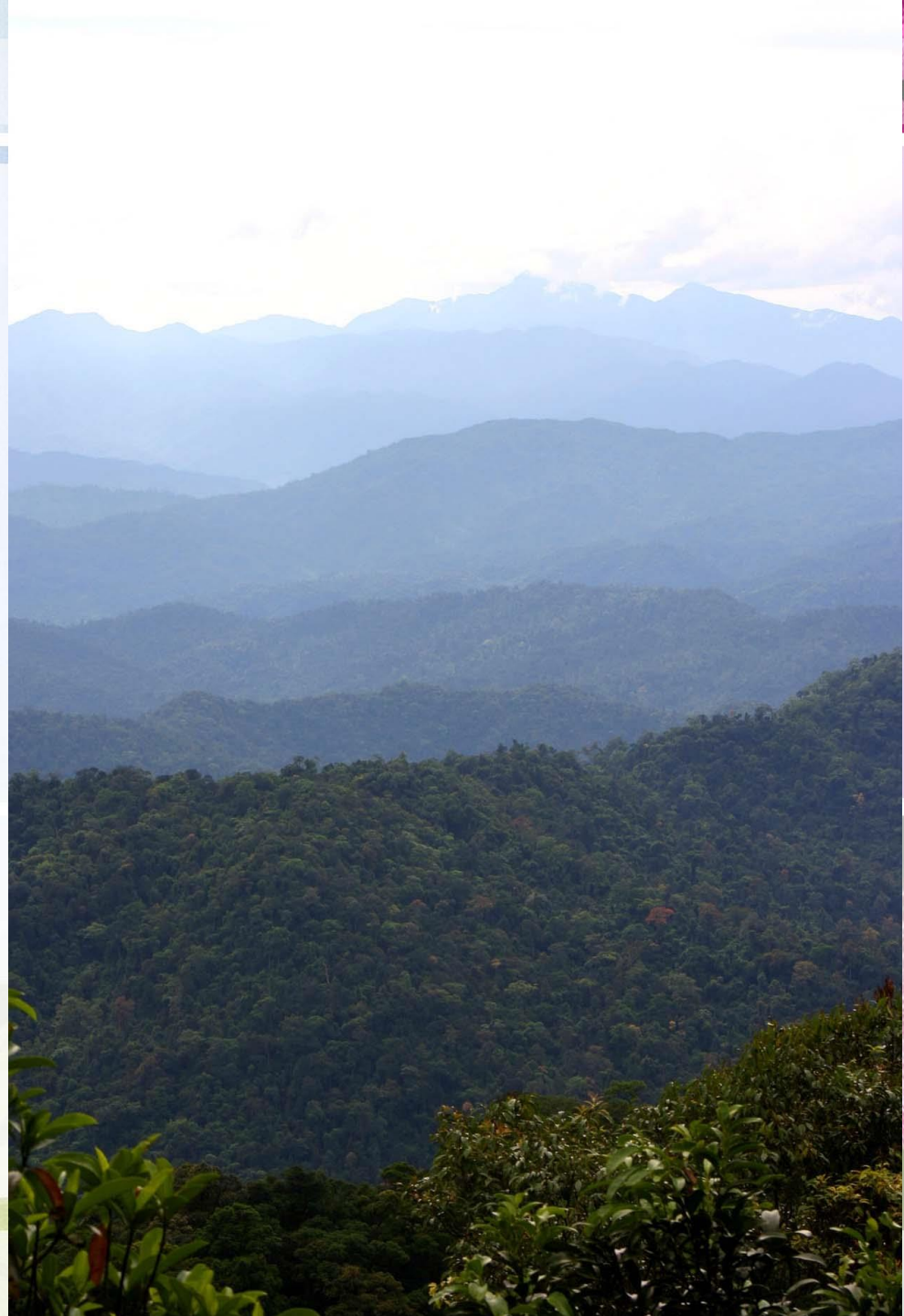




*Saola (Pseudoryx nghetinhensis)*

**Truong Son (Annamite) Range forms a natural border between the extensive lowland, moist evergreen forests of Vietnam and the drier monsoon forests of Laos.**

**It is a crossroad for interchange of Himalayan and Indo-Malayan influences that accounts for its high diversity and endemism.**

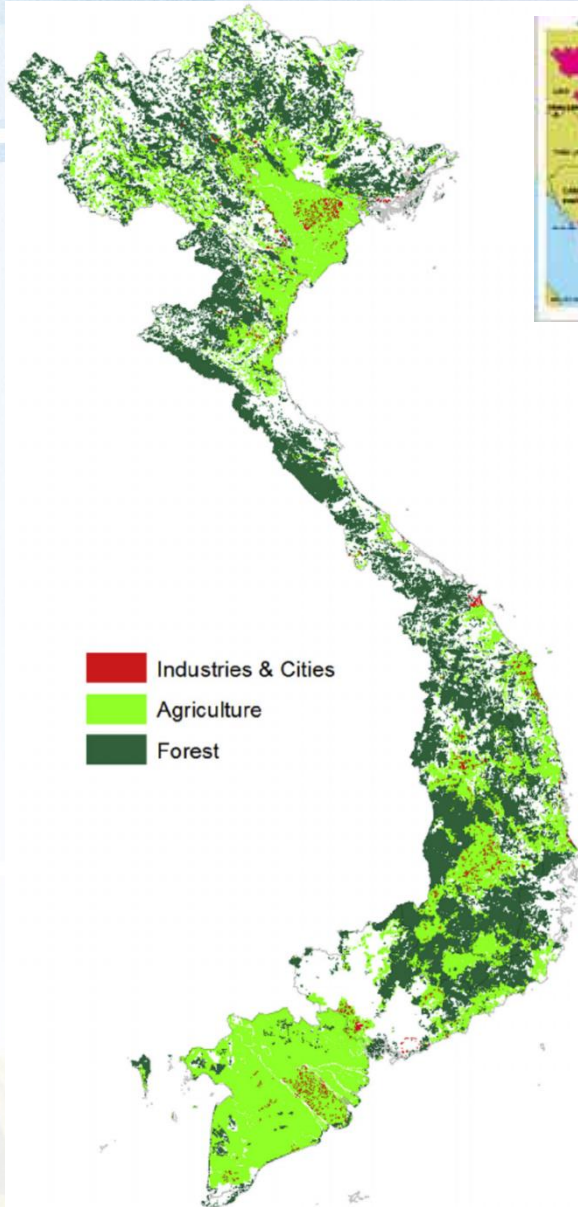




**Central Highlands is dissected by relatively level plateaus, where average elevations are mostly from 500 to 1500 m above sea level.**

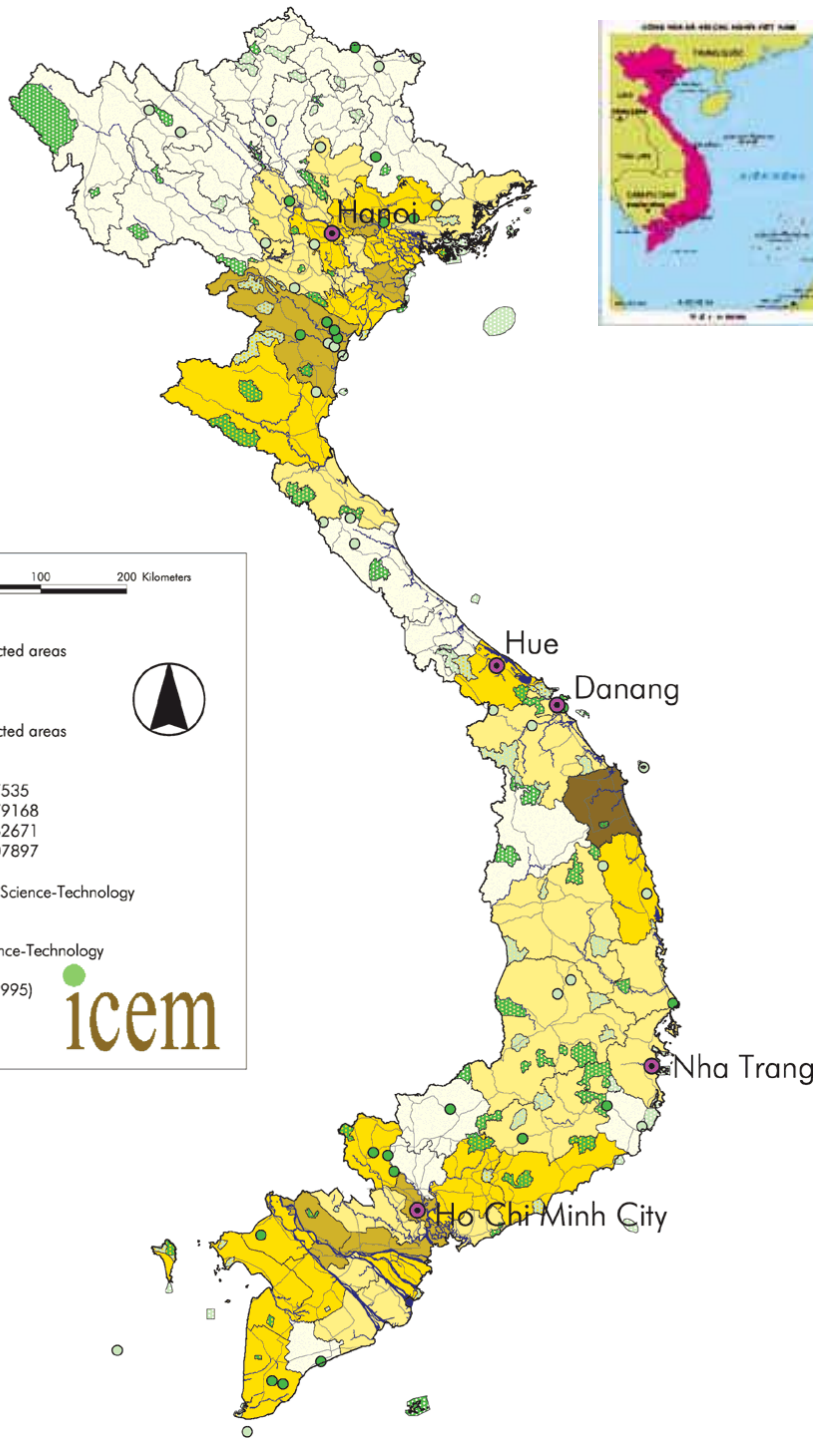






- Industries & Cities
- Agriculture
- Forest





# Protected areas and population

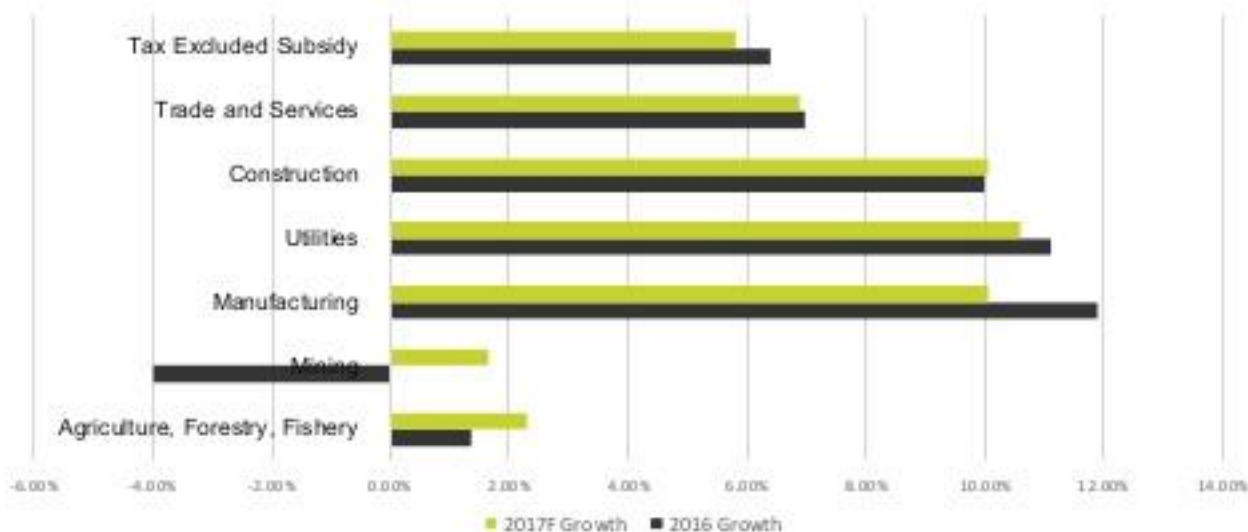




# Forestry's contribution to the Economy

## WHAT DRIVES VIETNAM'S ECONOMIC GROWTH?

2016 vs FORECASTED 2017 GDP GROWTH



Most sectors are forecasted with a robust growth. However, they are at lower growth rate in comparison to 2016 with the exception of the Mining sector growing from -4% at 2016 to 1.64% by 2017 forecast.

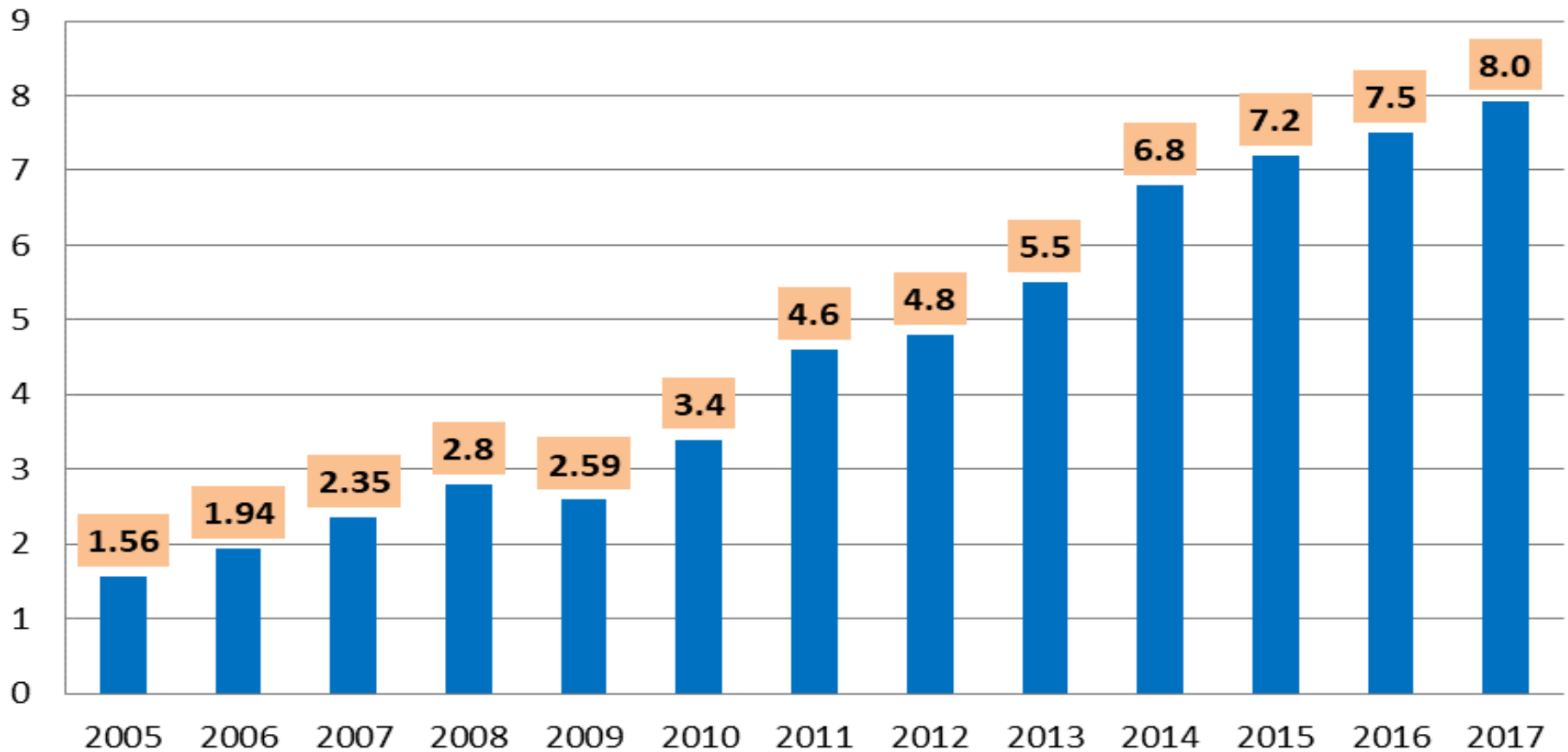
Source: General Office of Statistics of Vietnam, HSC, TIM



ECONOMIC STATUS

# Timber and timber products export

## Kim ngạch xuất khẩu lâm sản (tỷ USD)





The background features a collage of nature-related images: a pink flower in the top right, red berries on a green branch in the top left, a yellow flower in the bottom center, and a pink thistle-like flower in the bottom right. The central text is overlaid on a light blue and white background.

# CHALLENGES FOR FORESTRY SECTOR IN VIETNAM

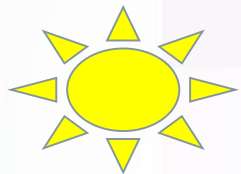
# Impacts on Threatened plant species



Lost Habitat



Invasive Species



Climate Change

Resource use



Threatened plants

Population growth



Policy and administration



Forest fire

Resource use conflicts









The background features a grid of colored squares in shades of blue, green, and purple. Several nature photographs are overlaid: a pink flower in the top right, red berries on a green leaf in the middle left, a yellow flower in the bottom center, and a pink thistle in the bottom right.

# **OPPORTUNITIES FOR FORESTRY SECTOR IN VIETNAM**









**PES**  
**PFES**  
**ABS**





# LEGAL DOCUMENTS ON PLANT DIVERSITY AND CONSERVATION IN VIETNAM

- Strategy of forest development from 2006-2020
- Law on biodiversity, 2008
- National biodiversity strategy to 2020, Vision to 2030
- Decree 177/CP, 2010
- National strategy on environment protection to 2020, Vision to 2030
- Law of Forestry 2017
- Decree 06/CP, 2019

# Protected area system



| Category of PAs                | Year 2017  |                  | Year 2020  |                  |
|--------------------------------|------------|------------------|------------|------------------|
|                                | Number     | Area (ha)        | Number     | Area (ha)        |
| I. National Park               | 32         | 1,077,236        | 34         | 1,083,226        |
| II. Conservation area (CA)     | 70         | 1,099,736        | 68         | 1,217,781        |
| IIa. Nature reserve            | 59         | 1,060,959        | 54         | 1,112,988        |
| IIb. Species/habitat CA        | 11         | 38,777           | 14         | 104,793          |
| III. Landscape protection area | 45         | 78,129           | 61         | 92,713           |
| IV. Scientific research forest | 20         | 10,652           | 17         | 10,838           |
| <b>Total</b>                   | <b>166</b> | <b>2,155,754</b> | <b>176</b> | <b>2,404,440</b> |

(Source: VNFOREST 2018)



# EDUCATION AND RESEACH SYSTEM



# A total of 235 Universities in Vietnam





# 01 Unviersity: Vietnam National University of Forestry



# **07 other University with Forestry Faculties/Departments**

- **Thai Nguyen University**
- **Hong Duc University**
- **Hue University**
- **Tay Nguyen University**
- **Nong Lam Ho Chi Minh University**
- **Tay Bac University**
- **Bac Giang agriculture and Forestry Uni**



**Not all University belong to Ministry of Education and Training (MOET).**

**VNUF belong to MARD (Human resources and financial)**

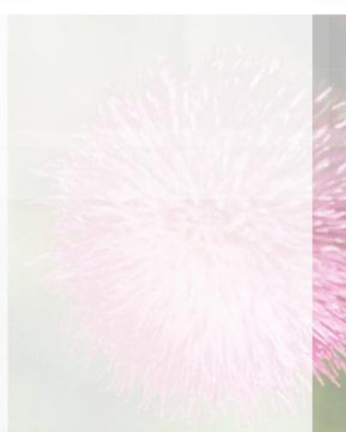


# PAPER INDUSTRY IN VIETNAM



- Consumption of all kinds of paper achieved an output of 4.95 million tons in 2018 (increase of 16% as compared to 2017).
- Paper production reached 3.68 million tons, up by 31%;
- Exports reached 0.81 mil tons, up by 63%;
- Imports reached 2.1 million tons, up by 6%.

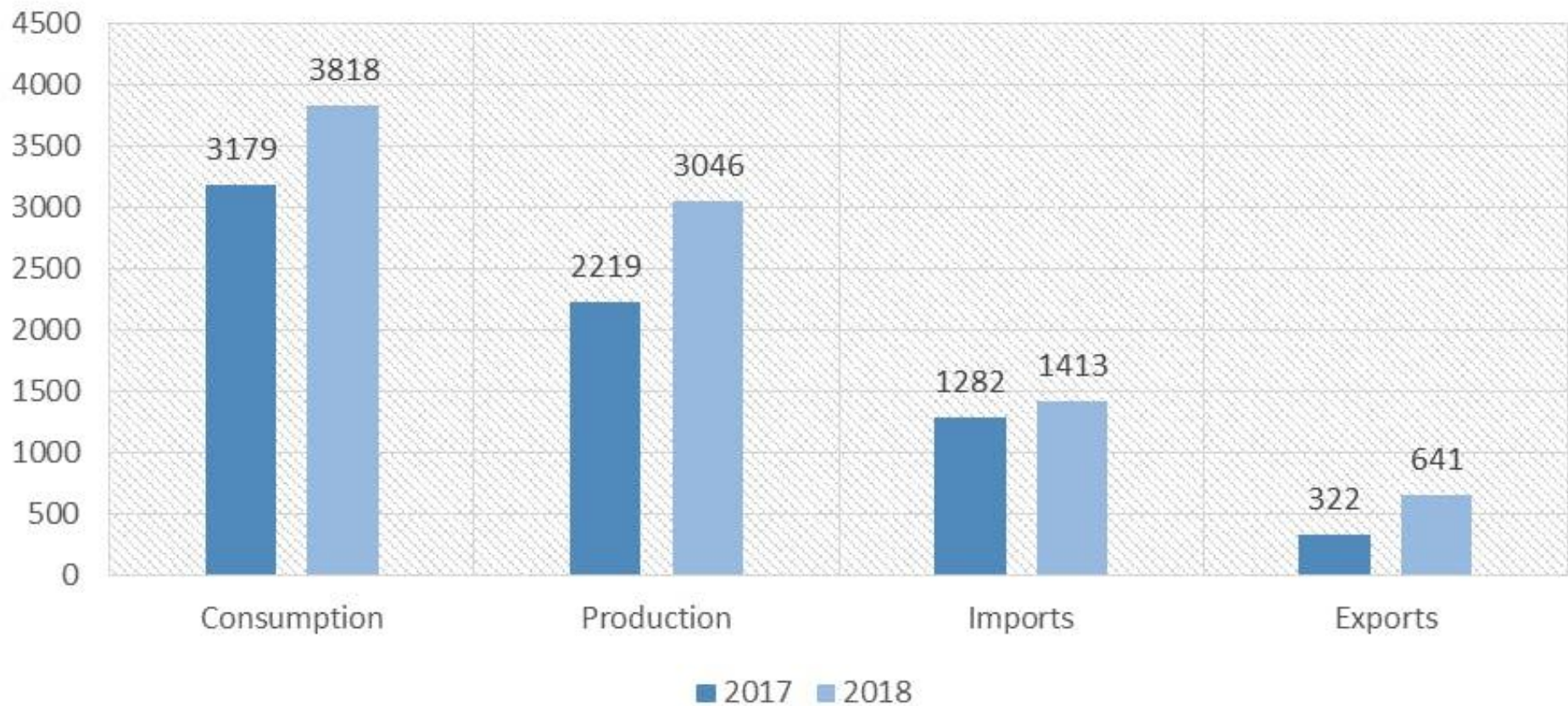
Pulp and Paper Association (2019)







## Overview of Vietnam packaging paper market in 2018 (unit. 1000 tons)





**Eucalyptus**





**ACACIA**





## EDUCATION AND RESEARCH

**Vietnam Research Institute Of Pulp And Paper Industry  
University of Science and Technology (Hanoi and Ho  
Chi Minh)**

**University of Industry (Hanoi and Ho Chi Minh)**

**Vietnam National University of Forestry**







QUY HOẠCH TỔNG THỂ TRƯỜNG ĐHLN

**VIETNAM NATIONAL UNIVERSITY OF FORESTRY**



# HUMAN RESOURCES



**Total of staff: 998; About 200 professors, Asso. professors and Doctors.**

**Currently almost 100 lecturers are doing PhD and MSc in oversea (USA, EU, Australia, Japan...)**





# STUDENTS



**About 13.000 students at various training levels (Ph.D, MSc, BSc and high school students)**



# COLLEGES/INSTITUTES

- Faculty of Forestry
- Faculty of Nature resources and Environment management
- Faculty of Economic and Business management
- Faculty of Mechanics and Civil Engineering
- College of Wood industry
- College of Forestry biotechnology
- College of Landscape Architecture and urban plants
- College of Land management and rural development
- Institute of Forest Ecology and Environment
- Centre for Biodiversity and Sustainable forest management
- Forestry high school



# Training

## Undergraduate (36 majors)

- Forestry,
- Silviculture,
- Forest resources & Environment Management,
- Natural resources management
- Environmental Science,
- AgroForestry,
- Urban Forestry
- Wood Technology,
- Industry for Rural Development.
- Forest management
- Ecotourism

# Training

## Undergraduate

- Forestry Mechanization,
- Forestry Economics,
- Business Administration,
- Land Management,
- Biotechnology,
- Furniture Design & Interior Decoration,
- Civil Engineering Techniques.
- Resources and Environment Economics
- Information System
- Landscape Architecture



# Training

## Masters degree

- 1.Silviculture,
- 2.Forest Resources Management & Protection;
- 3.Wood Technology;
- 4.Mechanical Forestry Techniques.
- 5.Economic of forestry
- 6.Environmental Science
- 7.Biotechnology
- 8.Land use management
- 9.Economic management
- 10.Interior Design



# Training

## Doctorate

1. Genetics and forestry tree variety selection;
2. Forest inventory and planning;
3. Silvicultural techniques;
4. Mechanical techniques and forestry equipment.
5. Forest Resources Management;
6. Agriculture economic





# SCIENTIFIC RESEARCH

**Silviculture**

**Biotechnology application**

**Urban Forestry and Landscape**

**Biodiversity; Wildlife management**

**Climate change**

**Forest Resources Management**

**None-Timber Forestry Product**

**Eco-tourism**


**Environment management**

**GIS and remote sensing**

**UNDERSTANDING  
WOOD** A CRAFTSMAN'S GUIDE TO  
WOOD TECHNOLOGY

R. Bruce Hoadley

hiên bản 2011 - Cập nhật ngày 01/12/2011  
thống Cảnh báo tỉnh Cảnh báo khu vực



**PHẦN MỀM  
CẢNH BÁO CHÁY RỪNG**  
*Tỉnh Quảng Ninh*

Bản quyền thuộc Công ty cổ phần Hệ thống thông tin Lâm Nghiệp  
Ngày cảnh báo: 31/08/2012



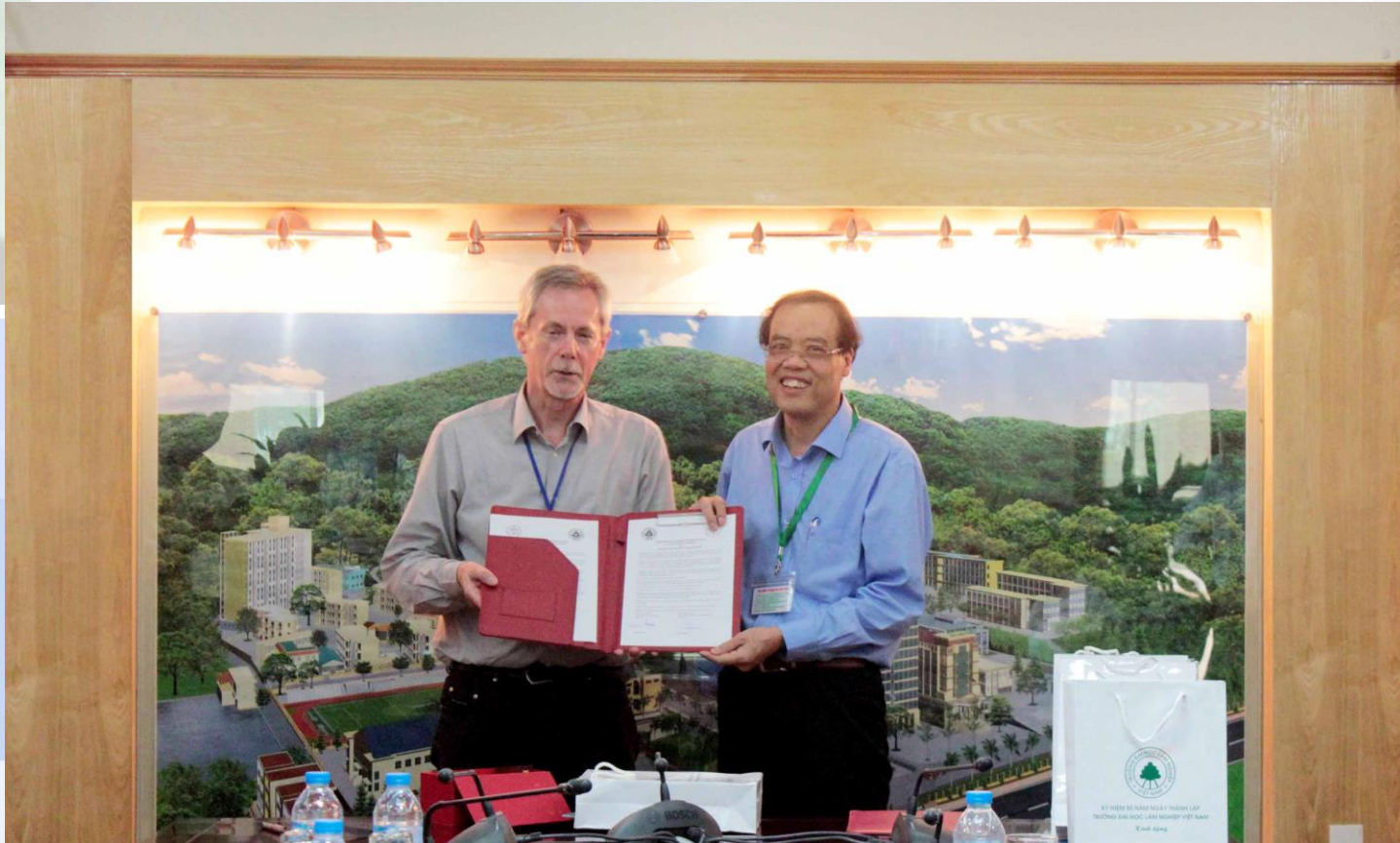


# SCIENTIFIC RESEARCH

Agriculture and Rural Development Policy  
Land Management  
Forestry Mechanization  
Civil Engineering Techniques  
Wood Technology; Pulp industry  
REDD; CDM; PES, PFES  
Sustainable forest management







# PUBLICATION

About 300 Papers/year



nature

International weekly journal of science

INAUGURAL ISSUE: 1 April 2010 | \$10

natural  
Science



Journal of  
Wood  
Science

The Japan Wood Research Society



Springer

Wood Science and Technology for  
Sustainable Forests



THANK

YOU