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The VI Assembly of Asia Pacific Forestry Education Coordinating  
Mechanism (APFECM)

## Enhancing Emancipated Learning in Indonesian Forestry Higher Education to Linking Conservation, Communities, and Industries

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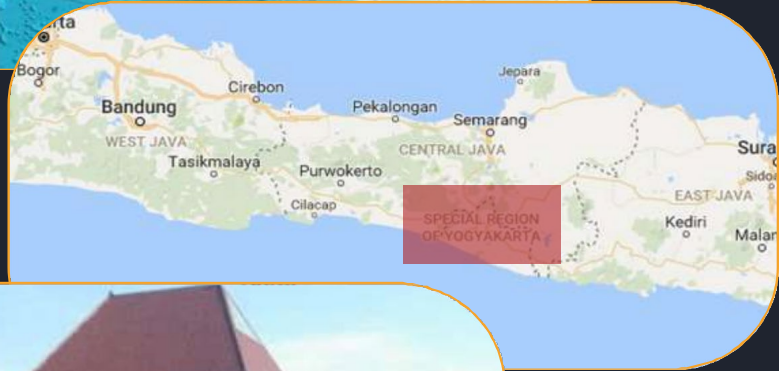
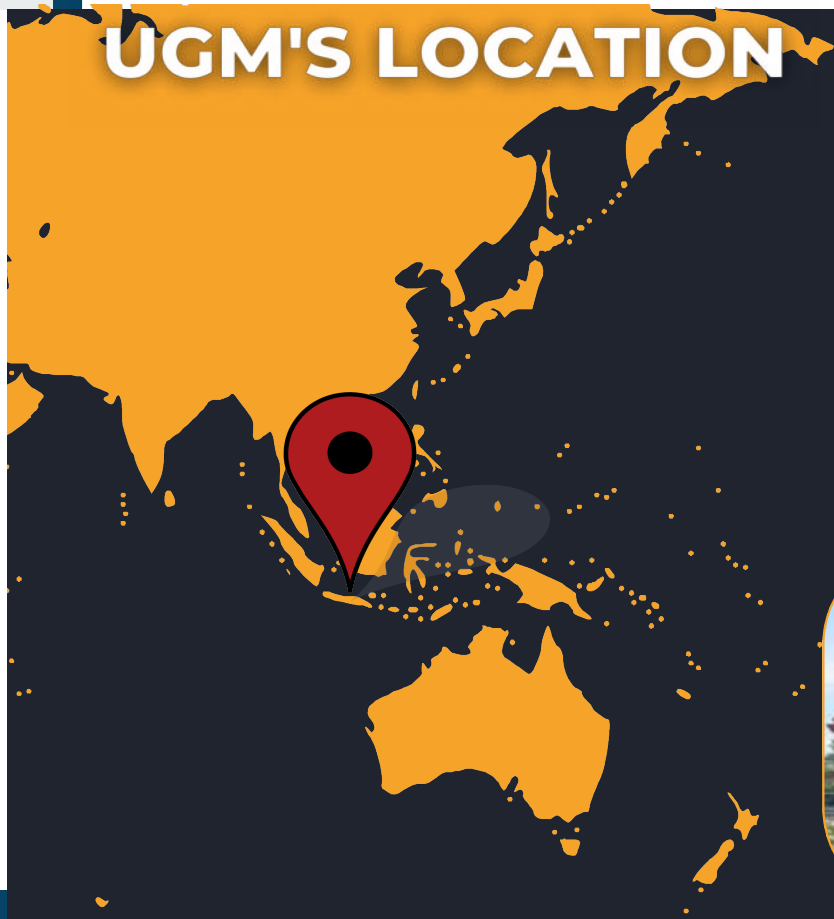
Kunming, 1517 August 2023



# UGM: A brief information



## UGM'S LOCATION





**18**

**Faculties**

**2**

**Schools**

**278**

**Study  
Programs**

**125**

**Joint Degrees/  
Double Degrees**

**23**

**Research  
Centers**



# ABOUT FACULTY OF FORESTRY UGM

- Founded on 17th of August 1963
- Total active student : 1600s



# Forestry Study Programs at UGM



| Study Programs➔                | Forestry Undergraduate (BSc)   | Forestry Professional Engineering (Ir)                                  | Master of Forestry Science (M.Sc)  | Doctor of Forestry Science (Dr.)   |
|--------------------------------|--|---|--|--|
| • Established                  | 1963   | 2021  | 1980   | 1980   |
| • Active student number (2023) | 1300s  | 72  | 82   | 62   |
| • Intake student number/year   | 260-300 (once)   | 150 (twice)   | 50 (twice)   | 20 (twice)   |
| • Number of alumni (2023)      | 7200s  | 180   | 1300s  | 150s   |
| • Accreditation                | National: Excellent<br>International: ASIIN<br>2021 – 2026                                   | In Progress   | National: Excellent<br>International: ASIIN<br>2019 – 2024   | National: Excellent<br>International: ASIIN (in progress)  |
| • Credits & duration           | 146 credits & 4 years  | 24 credits & 1 year   | 40 credits & 1.5 - 2 years   | 46 credits & 3-4 years   |
| • Type of study                | By Course  | By Course and Internship,<br>Past Learning Recognition                  | Regular; Research  | Regular; Research  |
| • Specialization               | Silviculture, Forest Management, Forest Resource Conservation, Product Processing Technology | Forest planning, Forest Silviculture, Forest industry, and conservation | Silviculture, Forest Management, Forest Resource Conservation, Product Processing Technology; others | Silviculture, Forest Management, Forest Resource Conservation, Product Processing Technology; others |

Alumni Profile:

1 President of Indonesia Republic

3 Ministers of Forestry



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# Emancipated Learning Policy: Why & how?

- Since 2020, emancipated learning was initiated by the ministry of education, culture and research to improve the graduate profiles and their competitiveness facing the future challenges: **disruption era**.
- Freedom of learning; progressivism educational philosophy; more democratic in learning forms, developing competencies, interests and talents, creativity and better critical thinking as well as problem solving.
- Students are allowed to **learn off-campus** for 1– 2 semesters, equals 20 – 40 credits.
- It links students with the **“real world” contexts**, understanding comprehensively, ready for opening **more job creation**.
- University are required to be adaptive through providing customized and personalized curriculum for the students.



# Forms of Emancipated Learning

- Community services
- Student Exchange: domestic and overseas
- Internship
- Independent study
- Research collaboration
- Social project
- Entrepreneurship
- Practical Teaching





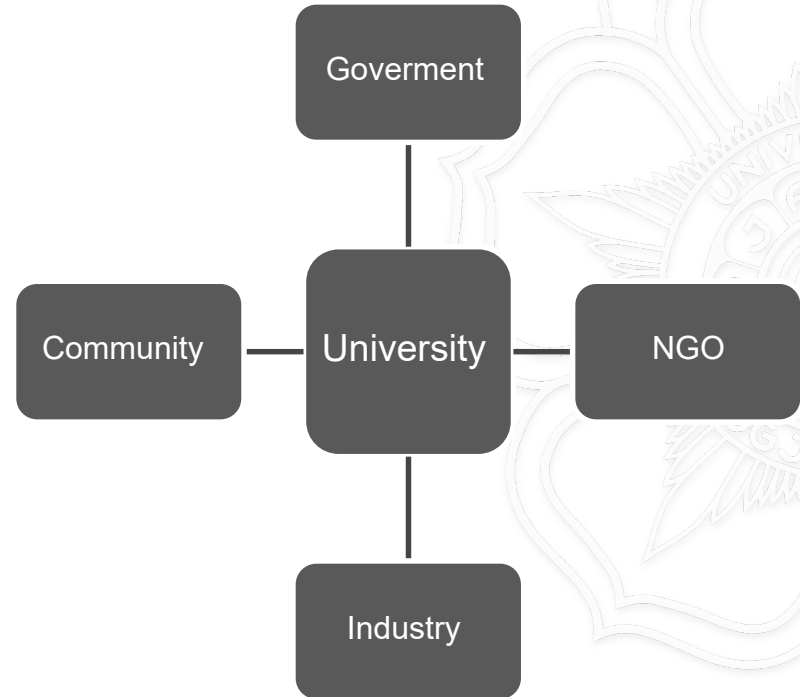
# Forestry Curriculum Adaptation

- Faculty of Forestry, as a part of UGM, need to synchronize the curriculum (especially for the undergraduate program) with the national policy
- These are our curriculum structure to adapt with national policy
  - **Compulsory courses : 106 credits (70%)**
  - **Elective courses: 40 credits (30%)**
- The students have an opportunity to select emancipated learning courses (20 credits) as parts of the elective courses and/or compulsory courses beyond their home study programs.
- **Emphasis: student mobility & multidisciplinary: student exchange, internship, research collaboration, and community services**

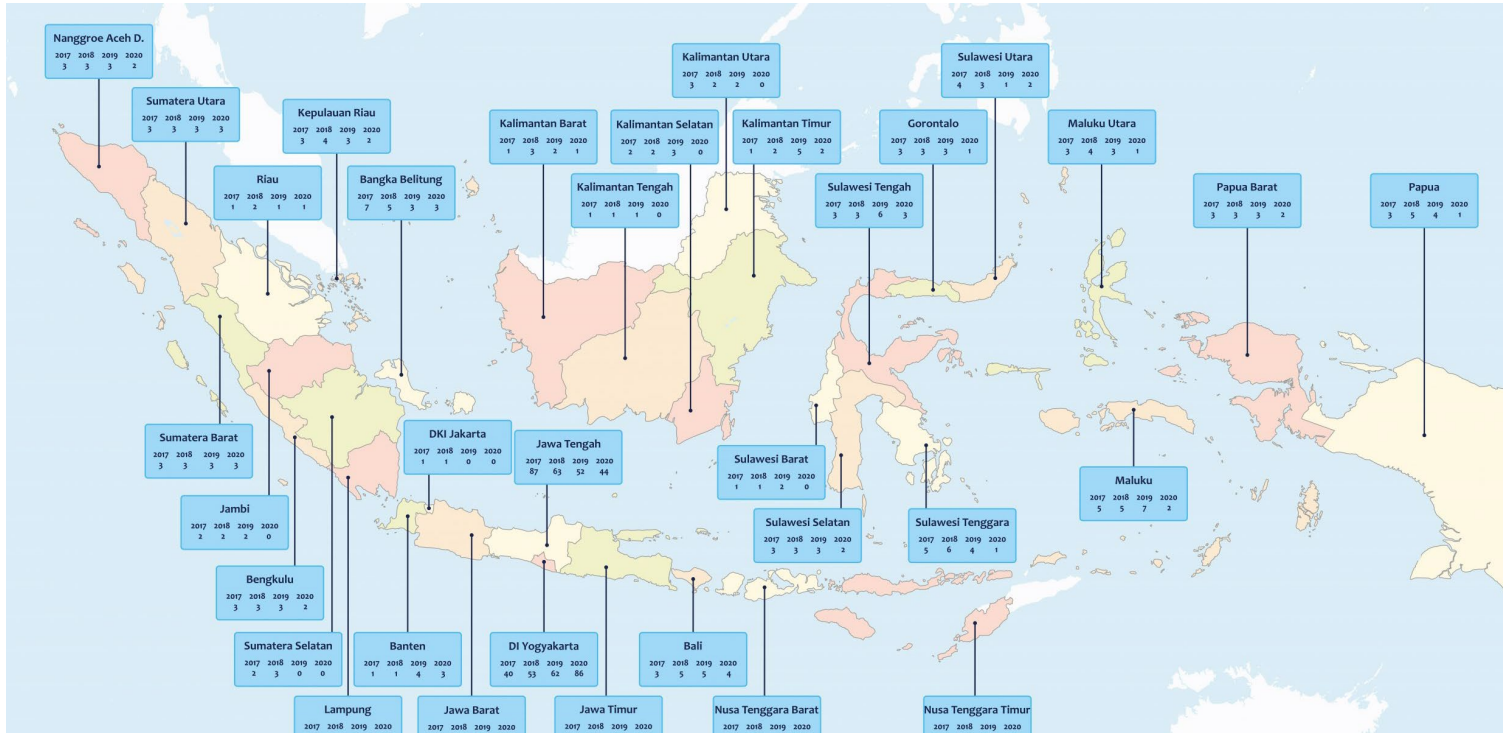


# Collaboration & Stakeholders

- The implementation of emancipated learning program requires a “**Penta helix collaboration**”
- Faculty of Forestry UGM has initiated several collaboration with various stakeholders
- Government:
  - Ministry of Environment and Forestry, Indonesia (MoEF)
  - The Peat and Mangrove Restoration Agency (BRGM)
- Industry:
  - Pertamina
  - Perhutani
- NGO:
  - Cempaka Foundation
  - CIFOR- ICRAF



# UGM Community Services For Village Empowerment)



- KKN PPM UGM is one of the flagship program in UGM (2 months in the village ~ 8 credits)
- In 2023, UGM has deployed 7.079 students in 400 villages (34 provinces) in Indonesia
- Student groups consist of members from interdisciplinary fields → multidisciplinary course & practices
- Partners: Village, Local/Central Government, Industries

# Establishing Social Forestry through The Implementation of Agroforestry

- Partner: ICRAF Indonesia; Cempaka Foundation, Magetan Regency
- Courses: Tropical Agroforestry; Society Communication & Organization; Economy and Business Model for Agroforestry; Data Management in Agroforestry Research; Traditional Agroforestry System
- Output: community forest profile which consist of traditional silviculture, socio-economic-ecology status





# Eco-Bamboo-Park: Integrated Approach in Developing Bamboo -Based Ecotourism

- Partner: The Department of Environment, Magetan (Government) and Bambu Nusa Verde (Bamboo Industry)
- Courses: Ecotourism Planning; The Silviculture of Bamboo; Bamboo Nursery and Propagation; Urban Forest Management; Non-Timber Forest Product Inventory
- Output: Report document which consist of the existing condition to support the development of Bamboo- Based Ecotourism



# The Development of Forest and Land Rehabilitation Monitoring System Using Drone

- Partner: PT Karya Solusi Angkasa (industry)
- Courses: GIS; Forest Rehabilitation; Mapping Using Drone; Seedball Development
- Output: seedball design and formula; Seed Tank Module



# The Development of Kepuh, Plant-based Biodiesel, for Energy Independence And Forest Sustainability

- Partner: CV Madurekso Kimia Raya (industry)
- Courses: advanced silviculture; biodiesel; tree improvement of Kepuh
- Output: bioenergy plantation demonstration plot; biodiesel quality





# Pine Silviculture: Enhancing Productivity of Pine Resin

- Partner: Perhutani (industry)
- Courses: advanced silviculture; tree improvement of *Pinus merkusii*;
- Output: standart operational procedure consist of silvicultural strategy for *Pinus merkusii*; rubber drill machine





# Impact & Outcomes

## Impact

- High impact program
- Bridging the university, community- industrial gaps
- Strengthening student specialization and mobility
- Mainstreaming interdisciplinarity to understand and solve the problems

## Outcome

- Challenge the students with the real problem from industry, community, or the other stakeholders
- Enhancing graduates' competencies, encompassing both soft and hard skills, to ensure preparedness and relevance in alignment with contemporary demands

# Challenges & Solution

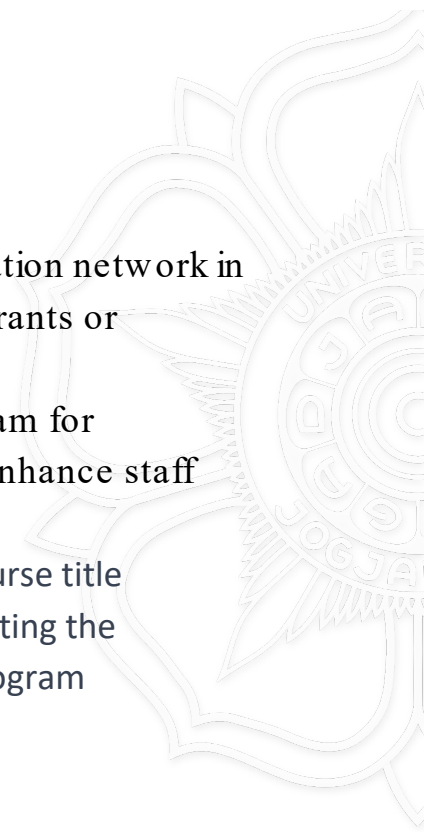


## Challenges

1. High-cost programs that depends on grant or external funding
2. Creativity during the programs is required to adapt with the actual condition
3. Conversion courses to elective or existing courses encountered rejection/resistance from several lecturer

## Solution

1. Expanding the collaboration network in order to receive more grants or external funding
2. Capacity building program for lecturer/researcher to enhance staff agility
3. Creating a specialized course title designed for accommodating the emancipated learning program



# Conclusion & Future Direction

- Emancipated learning policy is a high- impact program indicated by the benefit and outcome of the program, involved various stakeholders and multidisciplinary students and expertises.
- The implementation of the program has been executed effectively; however, it still presents a number of challenges that need to be addressed in the future.
- Student mobility is the most promising emancipated learning for forestry students that need to be enhanced.



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# Matur Nuwun

Thank you

