Good Afternoon
Guten Nachmittag
Selamat Petang
Magandang Hapon
chào buổi trưa
Selamat Sore
“The illiterate of the 21st century will not be those who cannot *read and write*, but those who cannot *learn, unlearn, and relearn*.”

-Alvin Toffler-
Towards Research University: Adapting to Local and Global Conditions
INDONESIA

Population: 258,705,000 (in 2016)
Density: 116/km² (Indonesia); 13,344 (Jakarta)
Local Governments: 440 districts in 33
**BOGOR CITY**

Country: Indonesia  
Province: West Java  
Area - Total: 21.56 km² (8.3 sq mi)  
Population (2007) - Total: 866,034  
Density: 40,168/km² (104,034.6/sq mi)  
Time zone: WIB (UTC+7)
1941-1963, Initiation Stage
(part of Indonesia University)

1963-1975, Born and Grow Stage
1 September 1963

1975-2000, Expansion Stage

2000-2005, Transition Autonomy Stage

2006- now Autonomy

2025 Realization of Higher Education
International level

ACADEMIC EXCELENT
• Student Body ~ 26,500
• Teaching Staff ~ 1,240
• PhD staff > 60%, **140 Professor**
• *International Partners > 80 Institutions (17 countries)*
• National Partners > 300
• Alumni ca. 134,579
• QS World Univ. Ranking 2016 | *by Subject Agriculture & Forestry* | ~ 50-100
One century of Indonesia’s Independent

“To be the leading university in strengthening the national standing through conducting an internationally recognized higher education in tropical agriculture, marine and bio-sciences”

IPB Statute 2013
FACULTY:
1. Agriculture
2. Veterinary Medicine
3. Fishery & Marine Science
4. Animal Sciences
5. Forestry
6. Agric. Engineering & Technology
7. Math & Natural Sciences
8. Economics & Management
9. Human Ecology

GRADUATE SCHOOL

VOCATIONAL STUDIES

SCHOOL OF BUSINESS
1. TECHNOLOGY AND ENGINEERING

• South East Asian Food and Agricultural Science (SEAFAST)
• Center for Tropical Horticulture (CTH)
• Center for Tropical Animal Studies (CENTRAS)
• Surfactant and Bio-energy Research Center (SBRC)
• Center for Research on Engineering Application in Trop. Agri. (CREATA)

2. ENVIRONMENTAL

• Environmental Research Center (ERC)
• Post-mining Reclamation Studies (PRS)
• Center for Climate Change Risk and Opportunity Management (CCROM)
• Center for Disaster Studies (CDS)
3. SPATIAL AND COMMUNITY DEVELOPMENT

- Center for Agricultural and Rural Development Studies (CARDS)
- Center for Reg. Systems Analysis Planning and Dev. (CRSAPD)
- Incubator and Entrepreneurship Development Center (IEDC)
- Center for Alternative Dispute Resolution (CARE)
- Center for Gender and Child Studies (CGCS)
- Center for Human Resources Development (CHRD)

4. MARINE AND COASTAL RESOURCES

- Center for Coastal and Marine Resource Studies (CCMRS)
5. FORESTRY
- Center for Tropical Forestry Research

6. BIOTECHNOLOGY AND BIOMEDICINES
- Primate Research Center (PRC)
- Research Center for Biological-Res. and Biotechnology (RCBB)
- Biopharmaceutical Research Center (BRC)

7. ECONOMICS AND FINANCE
- International Center for Applied Finance and Econ. Studies (Inter-CAFE)
- Center for Syariah-based Development Studies (CSDS)
Research Umbrella Conducted by The Institute of Research and Community Empowerment

- Renewable-Resources-Based Industries
- Bio-Related Science and Health
- Indigenous Knowledge and Technology
- Food Quality Control and Food Safety
- Genetic Resources, Genetic Engineering and Breeding
- Conservation and the Environment
- Social Welfare, Economic Affairs and Culture
- Biophysics, Mechanics and Equipment
- Management Information and Technology
- Regional Development and Community Empowerment
One century of Indonesia's Independent "To be the leading university in strengthening the national standing through conducting an internationally recognized higher education in tropical agriculture, marine and biosciences"

IPB Statute 2013

IPB Governance framework
1. **High quality** and relevant multi-strata education performance

2. Valuable research products that meet the needs of users/community

3. Fruitfull networking with the community, industry and government institutions related to technology transfer and community empowerment

4. Efficient, effective, transparent, and accountable higher education management.
Appropriate strategies to formulate research agenda towards these main outputs:

- Innovation
- Publication
- others
Practical Examples | Management

Vision, mission, objectives

Rector, Vice Rector

Directorate of Research and Innovation

External environment

Rector’s Secretariate

IPB Research Activities → Outputs → Outcomes

• Food
• Energy
• Ecology
• Poverty
• Biomedicine

• Articles
• Book
• Technology
• Policy Brief
• etc.

• Regulation
• New Policy etc.

Internal environment

• Sustainable resource management etc.
EXPECTED ROLES OF UNIVERSITIES FOR COMMUNITY IN INDONESIA

**UNIVERSITY PRODUCES INNOVATION FOR INCREASING NATION AND COMMUNITY COMPETITIVENESS**
## Number of Research Titles by Agenda

<table>
<thead>
<tr>
<th>Agenda</th>
<th>Total</th>
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<tbody>
<tr>
<td>Food</td>
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<td>Energy</td>
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<tr>
<td>Ecology</td>
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<tr>
<td>Biomedicine</td>
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<td>Poverty</td>
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<td>Technology</td>
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## Article (Scopus), Bibliometric, QS Indonesia Univ. Ranking, and Webometric Ranking

(University in Indonesia)

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<th>Bibliometric Ranking</th>
<th>QS Indonesia Ranking</th>
<th>Webo metric Ranking</th>
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Source: Scopus, QS WUR, Webometric
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<th>2014</th>
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<td>18</td>
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<td></td>
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<td><strong>Granted</strong></td>
<td>4</td>
<td>4</td>
<td>4</td>
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</table>
IPB total innovation in the period 2008-2015 is 326 innovations of the 828 Indonesian innovation. This amount is the highest compared with universities and other research institutions.
Active International Collaboration

- Central Government
- Local Government
- Private
- University

Bar chart showing the number of agreements (MoU and MoA) for each category.
IPB International Collaborations

INTERNATIONAL STUDENTS: 368 STUDENTS
THEY COME FROM 22 DIFFERENT COUNTRIES

ACADEMIC

International Accredited Study Program
1. Food Science And Technology

Goes To International Accreditation
1. Agronomy & Horticulture
2. Plants Protection
3. Landscape Architecture
4. Veterinary Medicine
5. Marine Science & Technology
6. Aquatics Resources Management
7. Aquatics Products Technology
8. Aquaculture Management & Technology
9. Animal Production & Technology
10. Nutrition Science & Feed Technology
11. Silviculture
12. Forest Product
13. Forest Resources Conservation & Ecotourism
14. Agroindustrial Technology
15. Mechanical & Biosystem Engineering
16. Economics & Management
17. Community Nutrition
18. Communication & Community Development

INTERNATIONAL PROGRAMS

1. Master In Information Technology Of Natural Resources Management.
2. Joint Degree: Master In Sustainable Agribusiness (Maastricht School Of Management, Netherland) Major – Minor.
3. Double Degree: Master In Agriculture Sciences (French Universities).
4. Joint Degree: Master In Agribusiness And Rural Development (University Of Goettingen, Germany).
5. Double Degree: Master In Sustainable Agriculture (Ibaraki University, Chiba University, And Ryukyu University Japan).
6. Joint Degree: Master In Agriculture And Forestry (Suiji, Ehime, Kagawa, Kochi University Japan).
7. Joint Degree: Master In Economics (Adelaide University Australia).

SUMMER COURSE PROGRAMS

2. An Introduction To Tropical Biodiversity: From The Mountain To The Sea (IPB-Uc/Searca).
4. Rapid Biodiversity Assessment (IPB–University Of Vienna).
5. Rehabilitation Techniques Of Degraded Dipterocarp Forest (IPB – University Of Goettingen).
6. Summer Course On Sustainable Agriculture (IPB–Ibaraki University).
Higher Education Partnership on Biosciences and Agriculture with IPB

<table>
<thead>
<tr>
<th>UNIVERSITY</th>
<th>COUNTRY</th>
<th>SCOPE</th>
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<tbody>
<tr>
<td>University Putra Malaysia</td>
<td>Malaysia</td>
<td>R, SE, C</td>
</tr>
<tr>
<td>University of Phillipines at Los Banos</td>
<td>Phillipines</td>
<td>R, C</td>
</tr>
<tr>
<td>South China Agriculture University</td>
<td>China</td>
<td>R</td>
</tr>
<tr>
<td>Pingtung University</td>
<td>Taiwan</td>
<td>R, SE</td>
</tr>
<tr>
<td>Kasetsart University</td>
<td>Thailand</td>
<td>R, SE, C</td>
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<tr>
<td>Tokyo University of Agriculture</td>
<td>Japan</td>
<td>R, SE</td>
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<tr>
<td>Yonsei University</td>
<td>Korea</td>
<td>R</td>
</tr>
<tr>
<td>Faisalabad Agricultural University</td>
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<td>Goettingen University</td>
<td>Germany</td>
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<td>Wageningen University Research</td>
<td>Netherlands</td>
<td>R</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>USA</td>
<td>R</td>
</tr>
</tbody>
</table>

R: joint research   SE: student and staff exchange   C: consortium
Stability of rain forest margins (Lore Lindu National Park, Palu)

Phase-1
Phase-2
Phase-3

Environmental and Land Use Change (ELUC) in Sulawesi
→ Individual proposal (2 years + 1 year extension)
→ Hand over research facility to CTFM-Untad

Ecological and economic functions of tropical rainforest transformation systems in Sumatera, Indonesia.
→ may be extended for next 2 phases (@ 4 years)

COLLABORATIVE PROJECT with Goettingen University

Environmental and Land Use Change (ELUC) in Sulawesi

2000 - 2009

STORMA

2010 - 2012

ELUC

2012 - 2016

CRC 990

25 topics

35 German PI
8 Postdoc
36 PhD (4 Indonesia)
48 counterpart IPB

2009 : Concluding workshop
2009 – 2011 : Preparation for New initiative projects (CRC)
Environmental Hazards:

- Climate change and uncertainty
- Increasing people movements
- Increasing movement of plants, animals and their products

Source: CSIRO (unpublished)
Green Knowledge - Petuah

**NATIONAL HUB**
- NRM
- SA
  - Best practices & GP Projects

**REGIONAL HUB**
- NRM
  - Best practices & GP Projects

**Exchange of GK best practices**
- UNSRI - PLACE
- UNJA - WAHYD
- UNUD - CORE
- UNRAM - CLEAR
- UNDANA - ALRIC
- UNHAS - SALUT
  - Pool of Knowledge & Experts
  - GK capture, collect/Manage & disseminate

**Aridland Agriculture (ALRIC)**
**Community-based Renewable Energy (CORE)**
**Watershed Management and Hydropower (WAHYD)**
**Climate-resilience Agriculture (CLEAR)**
**Smart Land Use Management (SALUT)**
**Peatland Conservation and Productivity Improvement (PLACE)**

Best practices & GP Projects
Cooperation program between IPB and the National Aeronautics and Space Agency (LAPAN). Has been initiated since 2010. This alliance is developed to carry out satellite technology construction and development in order to support food security and environmental monitoring programs especially in Indonesia.

As the early stage, LISat will be utilized to provide satellite information related to seasonal agricultural land monitoring particularly for rice production, which is focused on the acquisition of information from various phases of rice growth and to estimate the extent of harvested crops or to predict the best of planting season. This satellite is developed not only for agriculture purpose but also for marine and fisheries, forestry and climate as it stated in IPB Strategic Plan 2014-2018.
<table>
<thead>
<tr>
<th>Research Platform</th>
<th>Research Area</th>
<th>Funding</th>
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<tr>
<td>CRC990 – EFFoRTS</td>
<td>Ecology &amp; Socio-economy (A, E, G, H, I)</td>
<td>DFG, DIKTI</td>
</tr>
<tr>
<td>REDD+</td>
<td>Environment &amp; Climate Change (A, E, I)</td>
<td>DANIDA, DIKTI</td>
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<tr>
<td>ZOONOSES</td>
<td>Health &amp; Biomedicine (B, D, I)</td>
<td>JST/SATREPS, JICA</td>
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<td>AIC</td>
<td>Food &amp; Agriculture (A, F)</td>
<td>AIC , DIKTI</td>
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<tr>
<td>EMBRIO</td>
<td>Marine Biodiversity (C, E, I)</td>
<td>IPB, DIKTI</td>
</tr>
<tr>
<td>LISAT</td>
<td>Remote Sensing/Satellite (A, C, E, F)</td>
<td>LAPAN, IPB, DIKTI</td>
</tr>
<tr>
<td>PETUAH</td>
<td>Green Knowledge (All)</td>
<td>MCAI</td>
</tr>
</tbody>
</table>
HIGHER EDUCATION PARTNERSHIPS...such as:

- Erasmus Mundus Program (Expertsasia + Eurasia)
- University Consortium (SEARCA +)
- University Networks in Tropical Agriculture (UNTA)
- Asian University Forum (established in 2011)
- Six Universities Initiative Japan-Indonesia (SUIJI)
- US-Indonesia Partnership (USIP) Program
- Credit Transfer/Double/Joint Degree Program:
  - MB in Sustainable Business Development (MSM-NL)
  - MSc in Agribusiness (Goettingen Univ – Germany)
  - MSc in Dev’t Economics (Adelaide Univ – Australia)
  - MSc in Agro-Industrial Tech. (Adelaide Univ – Australia)
  - MSc in Agriculture Science (Ibaraki Univ – Japan)
  - MSc in Landscape Arch. (Chiba Univ – Japan)
  - AIMS (Indonesia, Thailand, Malaysia, Vietnam, Japan)
  - Etc...
COLLABORATIVE PROJECT With Hokkaido University

2009 – 2012 : Joint research and publications

PARE Program
Japan-Indonesia-Thailand (2012 – 2017)

PREPARATION STAGE
2008 : initial meeting
2009 : kick-off seminar

IMPLEMENTATION STAGE
2009 : Liaison office established
2009 : Symposium & workshop (Bogor, Hokkaido)
2010 : Symposium & workshop (Palangkaraya)
2011 : Summer school (Bogor, Palangkaraya, Riau)
2012 : Follow-up summer school (Hokkaido)
2013 -2015 : Symposium & workshop, Summer School

www.ifes-gcoe-indonesia
Sutjiprihati (2011)  Aswidinnoor et al. (2012)

Trikoesoemaningtyas (2012)
<table>
<thead>
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<th>Name of Lines</th>
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<td><strong>40.14</strong></td>
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<td>Cikuray</td>
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<tr>
<td>Malika</td>
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**SATURATED SOIL METHOD IN SOYBEAN CULTIVATION ON TIDAL LAND**

Ghulamahdi et al. (2012),
### ANALOG RICE (Rice-like grain)

<table>
<thead>
<tr>
<th>Composition</th>
<th>Analog Rice</th>
<th>Rice</th>
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<tbody>
<tr>
<td>Water content</td>
<td>10.58</td>
<td>14.39</td>
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<tr>
<td>Protein</td>
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<td>8.40</td>
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<tr>
<td>Fat</td>
<td>1.13</td>
<td>0.22</td>
</tr>
<tr>
<td>Ash</td>
<td>0.61</td>
<td>0.23</td>
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<tr>
<td>Carbohydrate</td>
<td>79.85</td>
<td>91.10</td>
</tr>
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</table>
Serambi Botani® (Outlet for IPB’s products)
Bogor (Botani Square), Jakarta (Gandaria City, Mal Artha Gading, Kota Kasblanka), Serpong-Tangerang (Mal Alam Sutera), Palembang (Mal Palembang Icon), Surabaya (Mal Ciputra World)

• Outlet of all IPB’s superior products both produced from research results (IPR base and non IPR) as well as small and medium business enterprise fostered by IPB
• Products: food, beverages, fruits, herbal & body care
Lessons learned | Good Practices

1. Creating common platform and interest for sustaining research funding from various sources
2. Providing seed funding for initiating and managing the collaboration with stakeholders
3. Encouraging and facilitating faculty staff and graduate students to receive competitive research grants
4. Clustering and sharing the research facility to increase its service quality and capacity
5. Establishing support systems for managing the innovation and its commercialization
Closing Remarks

1. IPB actively promotes research and innovation for economic advancement, as a part of significant elements to support people and country prosperity.

2. IPB facilitates research activities and builds a good academic atmosphere toward innovation creation;

3. IPB should play significant role in creating innovation and bridging network between innovators and users.
Searching and Serving the Best

Thank You

Danke