IPR System in Indonesia
Case Study:
Innovation and IPR Management
Bogor Agricultural University (IPB)

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http://dri.ipb.ac.id/
Outline of Presentation

- Introduction
- Managing innovation, partnerships, and technology entrepreneurship
  - The role: office of IPR and innovation in IPB
  - Problem faced in technology transfer at IPB
  - IPB’s IP guidelines
  - Capacity Building Efforts
  - Networks and Strategic Partners
The IPB’s goal

Becoming an entrepreneurial, research-based university to contribute to the country’s goal of promoting innovation and global competitiveness.

- Founded in 1963, IPB located in Bogor about 60 kilometers from the capital city, Jakarta.
- Consists of 9 faculties, 36 departments, and 30 research centers
Academic autonomy and pursuit of relevance: structuring a paradigm shift at IPB

- With its autonomous status approved in 2013, through Government Regulation (PP No. 58/2013), IPB formally changed to become a public legal entity university (Perguruan Tinggi Negeri Badan Hukum - PTN BH) and adopted the ‘market or private model’ approach in higher education management.

- ‘market model’ enable universities to manage assets for academic excellence, entrepreneurial purposes and other chosen purposes, and improve the university’s relevance and quality to respond to market and social needs.
Academic autonomy and pursuit of relevance: structuring a paradigm shift at IPB

- Research expenditures in the last three years has significantly increased (2010: Rp 8 billion; 2011: Rp 100 billion; and 2012: Rp 107 billion) from the Indonesian government and various sources to support research and improvements in facilities and infrastructure.

- IPB has collaborations with about 200 institutions from 32 countries and these collaborations are focused on research partnerships and student internship.

- 5 Research agenda of IPB: Food, Energy, Technology, Poverty Alleviation, Biomedicine → align well with Indonesia’s medium-term national development 2015-2019 → Resulted to the improvement of IPB’s IP portfolio in many areas including agriculture, biotechnology, clean technologies, engineering, instrumentation, and food and health.
Managing Innovation and IP/IPR in IPB

Managing innovation, partnerships, and technology entrepreneurship

1. The role: office of IPR and innovation in IPB
2. Problem faced in technology transfer at IPB
3. IPB’s IP guidelines
4. Capacity Building Efforts
5. Networks and Strategic Partners
1. The role: office of IPR and innovation in IPB

- In 1999 IPB had already setup a unit which managed technologies (IPR) and innovations coming out of university research.
- In 2013 office of IPR and innovation (OII) of IPB is under the Directorate of Research and Innovation (DRI).
- Coordinates the administration of university technologies for deployment in the public domain Coordinates management of university technology that will be protected (IP system), and manages a database of IPB’s research, IPR, and scientific publications/journal.
Managing Innovation and IP/IPR in IPB

Office of Innovation and IPR in IPB’s Organization Structure

- Rector
  - Vice Rector for Academic & Student Affairs
  - Vice Rector for Resources & Strategic Issue Studies
  - Vice Rector for Research & Collaboration
  - Vice Rector for Facility & Business
  - Dit. of Research & Innovation
  - Dit. of Collaboration & International Program
- Office of Research Agenda & Publication
- Office of Innovation and IPR
Managing innovation, partnerships, and technology entrepreneurship

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2. Problem faced in technology transfer at IPB

- Limited number of IP management staff with requisite technology transfer and marketing skills and professional knowledge
- Limited competency and knowledge among researchers in the importance of protecting and commercializing research results
- Research results that were at the laboratory level as new, untested findings with no prototype information and or do not address industry needs and high investment risk for technology buyers
- External environment: lack of confidence from businesses and other stakeholders in Indonesia, limited venture capital, weak networks between investors, industries, intermediary institutions, poor infrastructure financing.
Managing Innovation and IP/IPR in IPB

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3. IPB’s IP/IPR guidelines

- Rector Decree 180/K13/PG/2005: Intellectual Property Rights policies and procedures for research done by students
Ownership. IPB’s IP policy emphasizes university ownership of IP that were generated by its employees and students with full funding by IPB and using university resources.

Protection, Commercialization, and Benefit-Sharing. The policy also emphasized the importance of managing public disclosures or publications to ensure that the university will be able to comply with the requirements of IPR protection and not compromise protection and commercialization activities.

IPB has also institutionalized a process to determine when a researcher’s finding will be protected and licensed or commercialized.
Managing Innovation and IP/IPR in IPB

- Assessment of the business feasibility of any invention as a first step to reduce the expense of patenting
- IP not passing the first assessment is relegated to the inventor for further development or self-commercialization
- When IPB finds a commercial partner, the IP is sold, licensed, and/or used to setup other entrepreneurial activities.
- IPB’s revenue sharing plan regardless of estimated value is fixed at 40% for the inventor; 40% for the university; and 20% for the department or research unit.

Standard Operating Procedures of IPR commercialization improvement in IPB
Managing Innovation and IP/IPR in IPB

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4. Capacity Building Efforts

- 2005-now: Socialization through printed media (book, brochure, booklet, etc). Concentrated in training its faculty, staff, and students on IPB’s new IP policy and framework. Several in-house training was also conducted for IPB faculty focused on the basics of IPR, prior art search, patent drafting, and conducting IP audit.
4. Capacity Building Efforts

- 2008-now: began patent mediation, expanding its IP management and technology transfer program focused on recruiting additional personnel to prepare patent applications and market IPB’s technologies for private commercialization.
Managing Innovation and IP/IPR in IPB

4. Capacity Building Efforts

- 2009-now: OII has organized educational informational, business and technology events and expositions to market its technologies and encourage more faculty, staff, and students to be entrepreneurs.

4. Capacity Building Efforts

In 2007-now, IPB has utilized IPB’s technology and agribusiness incubators to encourage technology entrepreneurship, establish and run university spin offs for local business development.

### Table 2

<table>
<thead>
<tr>
<th>Invention</th>
<th>Patent number</th>
<th>Institution</th>
<th>Remarks</th>
<th>Mechanism of technology transfer</th>
</tr>
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<tbody>
<tr>
<td>Machine for dividing of wood construction</td>
<td>ID P 0029402</td>
<td>Department of Forestry Product, Faculty of Forestry, IPB</td>
<td>Cooperation with Private Company CV, Cakra Mulya</td>
<td>Business cooperation</td>
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<td>Instant noodle from corn</td>
<td>ID P 002637, P0023620, P0020100063</td>
<td>Southeast Asia Food and Agriculture Science and Technology Center, IPB</td>
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<td>Start up business</td>
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<td>Production of catfish flour</td>
<td>P00201000605</td>
<td>Department of Family and Consumer Sciences Faculty of Human Ecology, IPB</td>
<td>Cooperation with Inotek Foundation</td>
<td>Start up business</td>
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<tr>
<td>Seed (papaya, melon, chilli, mungbean)</td>
<td>Plant variety registration</td>
<td>Research Center for Tropical Fruit Studies, IPB</td>
<td>Will be applied at national level by Innovation National Committee</td>
<td>Spin off</td>
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<tr>
<td>Biofertilizer (Probio)</td>
<td>Trade secret</td>
<td>Department of Soil Science and Land Resources Faculty of Agriculture &amp; Center for Environmental Research, IPB</td>
<td>--</td>
<td>Spin off</td>
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<tr>
<td>Avian influenza vaccine (Reverse Genetic Technology)</td>
<td>Patent by PT Shijeta</td>
<td>Faculty of Veterinary Medicine, IPB</td>
<td>Joint Venture IPB Shigeta Enterprise</td>
<td>Business cooperation</td>
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<td>Faculty of Marine Sciences and Fisheries, IPB</td>
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<td>P00200100385</td>
<td>Biopharmaca Research Center, IPB</td>
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<td>Start up business</td>
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</table>
4. Capacity Building Efforts
Cooperation with Yayasan Inotek (RAMP) Indonesia

Production of catfish flour as raw material for "High Nutritious Biscuit Based on Flour Catfish as Supplements and Food Emergency".

Supporting RAMP Indonesia (2010):
1. Establishment of business entities, PT. Carmelitha Lestari
2. Supply and procurement of a place and equipment of production
3. Commercialization and marketing the product
4. Capacity Building Efforts

PT IPB - Shigeta
Cooperation with PT IFARIA GEMILANG through BIC

Production of Cajuput Candy
4. Capacity Building Efforts

Probio: Cooperation with Biofertilizer Consortium
Managing Innovation and IP/IPR in IPB

4. Capacity Building Efforts

Tropical Horticulture Research Center

Seed productions (Chilli, Papaya, Corn, Paddy)
Managing Innovation and IP/IPR in IPB

4. Capacity Building Efforts

- From 2012-2013 along with regulary task/function, DRI/OII focused in obtaining certification of quality management system ISO 9001:2008
- Certified from 18 December 2013
- The scope of certification: management of research agenda, international scientific article, management of IPR based research result and innovation
Extraordinary Intellectual Property Award for technology, plant varieties, and science categories from the Government of Indonesia; of the 21 recipients for 2009, 9 were classified as researchers, 5 as lecturers, and 7 as students and alumni.

4. Capacity Building Efforts: Achievement

Year 2009

2010: 1 recipient from IPB

2012: 3 recipients from IPB
Managing Innovation and IP/IPR in IPB

4. Capacity Building Efforts: Achievement

- Patent and trademark applications, with many already awarded to the university, also showed growth increasing 12.92% per year for the period 2008-2011

Number of IPB’s Patent Based on Year of Application (1998-August 2013)
### 4. Capacity Building Efforts: Achievement

#### Number (Accumulative) of IPB’s IPR (2009 - 2013)

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<td>Granted</td>
<td>-</td>
<td>-</td>
<td>4</td>
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<td>4</td>
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</tbody>
</table>
4. Capacity Building Efforts

- OII now has four full time staff: a deputy director, one coordinator for IPR Innovation management database and two technology marketing personnel supporting IPB’s IP management and technology transfer activities.

- In carrying out its role, OII was help by the Commission of IPR & Innovation consists of 9 lecturers which represents faculty and also have experience in the field of IPR and innovation.
Managing Innovation and IP/IPR in IPB

4. Capacity Building Efforts

In 2012, IPB also received a recognition award from the Vice President of the Republic of Indonesia commending IPB as the university with the most patent applications and granted patents in Indonesia for five consecutive years.
4. Capacity Building Efforts

- Development of Mini Gallery Innovation IPB
4. Capacity Building Efforts

2011: 2 Participants from OII for Coordinator Training for Tertiary Education-Industry-Government (T-I-G) Link to Develop Local Industry Sector, Toyohashi University Japan
2012: 1 Participant from OII for Coordinator Training for Tertiary Education-Industry-Government (T-I-G) Link to Develop Local Industry Sector, Toyohashi University Japan
2013: 1 Participant from OII for JPO/IPR Training Course for IP Trainers, Tokyo, Japan
4. Capacity Building Efforts

Number of IPB’s Innovation in 100+ Book of Indonesia Innovation
Published by Business Innovation Center Indonesia (2008 - 2013)
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- From 2010-2011, IPB focused on establishing strategic partnerships with intermediary institutions (e.g. PT Bogor Life Science & Technology /PT BLST (Holding company of IPB), National Innovation Committee, Business Innovation Center-BIC, Recognition and Mentoring Program (RAMP)-The Lemelson Foundation).

- OII also works closely with IPB’s Directorate of Business and Partnership (DBP) under the Vice Rector for Business and Communication, and the Research Center for Entrepreneurship and Empowerment (RCEE) → this tripartite approach ensures that resources are efficiently used, R&D is coordinated and aligned with university priorities and the university is on-course to achieve its goal of being a research- and entrepreneurial-based institution.
5. Networks and Strategic Partners

- IPB also works very closely with Indonesia’s Directorate General of Intellectual Property Rights, which administers the Indonesia’s IP system and specifically in talks with the Patent Office to understand the process of securing patent protection for university technologies abroad and possibly expanding market reach of the university.

- IPB also continues to strengthen its relationships with the private sector not only as a partner in delivering technologies to market but also as a partner in building the necessary infrastructure to further promote research and agricultural development (e.g. the oil palm teaching farm with Cargill, located in the Jonggol sub-district of Bogor)

- Partnerships with foreign institutions (e.g. Washington State University) and international donors (e.g. United States Agency for International Development) are deliberately pursued to support IPB’s internationalization agenda, strengthen the university’s network, benchmark its practices, and enhance its resources for institutional and human capacity building in managing university technologies.
5. Networks and Strategic Partners

Joint publication of IPR
Serambi Botani® *(Outlet for IPB Products)*
Botani Square Bogor
Gandaria City, Mal Artha Gading, Mal Teras Kota BSD Tangerang

- Outlet of all IPB's superior products both produced from research results (innovation and IPR) as well as small and medium business enterprise fostered by IPB
- Products: food, beverages, fruits, herbal & body care
Thank you
Terima Kasih

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