Panel 3: Accelerating University Technology to the Market

- from JICA’s International Cooperation Experience -

Toru Homma
Senior Advisor on Private Sector Development
Japan International Cooperation Agency (JICA)

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Achievement and Way Forward of AUN/SEED-Net

Achievement by Phase 3

1. Improvement of Quality of Academic Staff
   - 1,392 Master and PhD scholarship
2. Improvement of Quality of Research
   - 211 Research Projects
3. Mobility/Network
   - More than 700 Trips (Research Fellowship, Short-term Research Program in Japan, Short-term Visit Program in ASEAN, Japanese Professor Dispatch Program)

Project Purpose of Phase 4

The network of AUN/SEED-Net among member countries is well maintained and expanded.

Networks among Member Institutions (MIs), Industry and community are strengthened

Research and educational capacity of MIs is enhanced through collaboration among MIs/Japanese Supporting Universities (JSUs)

Joint research is promoted for solving regional issues

Academic network among MIs/JSUs is strengthened and expanded

Network of 40 Engineering Universities in ASEAN and Japan

10 ASEAN countries: 26 Member Institutions
- University of Yangon
- Yangon Technological University
- Chulalongkorn University
- King Mongkut’s Institute of Technology Ladkrabang
- Burapha University
- Kasetsart University
- Thammasat University
- Universiti Sains Malaysia
- Universiti Malaya
- Universiti Putra Malaysia
- Universiti Teknologi Malaysia
- National University of Singapore
- Nanyang Technological University
- National University of Laos
- Hanoi University of Science and Technology
- Ho Chi Minh City University of Technology
- Institute of Technology of Cambodia
- Universiti Brunei Darussalam
- Universiti Teknologi Brunei
- Institut Teknologi Bandung
- Universitas Gadjah Mada
- Institut Teknologi Sepuluh Nopember
- Universitas Indonesia

Japan: 14 Supporting Universities
- Hokkaido University
- Keio University
- Kyoto University
- Kyushu University
- Nagoya University
- National Graduate Institute for Policy Studies
- Osaka University
- Shibaura Institute of Technology
- Tohoku University
- Tokai University
- Tokyo Institute of Technology
- Toyohashi University of Technology
- The University of Tokyo
- Waseda University

Project Timeline

Phase 1: 2003 - 2008
- Establishment of Framework
- Strengthening and Promote Network
- Addressing Common Regional Issues and Industry

Phase 4: 2018 - 2023
- Developing Sustainable Scheme for Collaborative Education and Alumni Support

Source: JICA (2018)
Network of 40 Engineering Universities in ASEAN and Japan

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26 Member Institutions

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- Institute of Technology of Cambodia
- Universiti Sains Malaysia
- Universiti Malaya
- Universiti Putra Malaysia
- Universiti Teknologi Malaysia
- National University of Singapore
- Nanyang Technological University

Japan:
14 Supporting Universities

- Hokkaido University
- Keio University
- Kyoto University
- Kyushu University
- Nagoya University
- National Graduate Institute for Policy Studies
- Osaka University
- Shibaura Institute of Technology
- Tohoku University
- Tokai University
- Tokyo Institute of Technology
- Toyohashi University of Technology
- The University of Tokyo
- Waseda University
- University of the Philippines – Diliman
- De La Salle University
- Mindanao State University – Iligan Institute of Technology
- Universiti Brunei Darussalam
- Universiti Teknologi Brunei
- Institut Teknologi Bandung
- Universitas Gadjah Mada
- Institut Teknologi Sepuluh Nopember
- Universitas Indonesia

Source: JICA (2018)
ASEAN University Network/ Southeast Asia Engineering Education Development Network (AUN/SEED-Net Project)

Project Purpose & 4 Main Objectives

**Capacity Development of academic staff of Member Universities**
Scholarship and Research programs for faculty staff

**Addressing common regional issues**
Research conducted which addresses common issues in the region

**A region-wide system for advanced research and education will be established by Member Universities, in collaboration with Japanese Supporting Universities.**

**Academic networking among Member Universities in ASEAN and Japan**
Other academic activities among universities in ASEAN and Japan (e.g., organizing conferences, publicizing an academic journal, exchange of faculty staff, etc.)

**Linkage between universities and industry**
Strengthen the linkage between industrial sectors and Member Universities

Source: JICA (2018)
**Framework of AUN/SEED-Net**
Master’s/Doctoral Programs + Collaborative Research + Networking

- Advanced ASEAN Countries* Host U.
- Master’s/Doctoral programs in ASEAN
- Inter-University Network
- Networking
- Field-wise Regional Conference
  Japanese staff dispatch
  Short-term visits to Japan
  Short-term visits in ASEAN

* Advanced ASEAN countries: Indonesia, Malaysia, Philippines, Singapore & Thailand
** CLMV: Cambodia, Laos, Myanmar & Vietnam

* Source: JICA (2018)
10 Engineering fields

- Chemical Engineering
- Civil Engineering
- Computer and Information Engineering
- Electrical and Electronics Engineering
- Geological and Geo-Resource Engineering
- Materials Engineering
- Mechanical and Manufacturing Engineering
- Energy Engineering
- Environmental Engineering
- Natural Disaster

Welcome to the university-industry linkage portal under SEED-Net Web. This site aims to help you in finding your research partners from our member universities in ASEAN as well as applying for financial opportunities for collaborative researches.


http://seed-net-ui.org
Directories for Engineering for each member country

UNIVERSITY-INDUSTRY LINKAGE

Dr. Ika Dewi Ana
Universitas Gadjah Mada, Indonesia

- Synthesis of Carbonate Apatite Composite Bone Graft, Its Degradation Profile, Cellular and Inflammation Response in Animal Model, Osteoconductivity, and Initial Clinical Trial Towards Product Spinning-off
- Along with Professor Kunio Yoshikawa from Kyushu University who was her PhD supervisor
- The first ever commercialized tissue engineering product in Indonesia.
- Initiated product orders for bone graft distribution all over Indonesia; sold 30,000 sets in 3 months; cost down up to 1/3 of import products
- Assisted commercialization; 2 patents were already approved and 2 more are under process

Source: JICA (2018)
Research Programs: Example for Collaborative Research with Industry

• “GAMACHA” Commercialized material, which is used as scaffold for the regeneration of bone
• Collaboration between University of Gadjah Mada and PT. Kimia Farma

“I was very lucky to be awarded CRI grant. I am very happy because finally as a researcher in the area of tissue engineering I can realize my dream to help my patients by tissue engineering research.”

JICA Technical Cooperation on Intellectual Property (IP) in Asia

*Projects written in bold letters are in operation.

**China**

**Philippines**
- Modernization of Industrial Property Administration [1999-2003]
- F/U of Modernization of Industrial Property Administration [2004-2006]

**Indonesia**
- Industrial Property Rights Administration [2005-2010]

**Myanmar**
- Advisor for Intellectual Property Administration [2015-2019]

**Thailand**
- Industrial Property Information Center [1995-2000]

**Viet Nam**
- Modernization of Industrial Property Administration Project [2002-2005]
- Project for Strengthening the Enforcement of Intellectual Property Rights [2012-2017]

**Malaysia**
- Study on Enhancement of Intellectual Property Rights Administration Capacity through Utilization of Information Technology [2002-2005]

**Source:** JICA (2018)
JICA Technical Cooperation in the field of Intellectual Property (IP)

JICA normally implements technical cooperation in the following stages in cooperation with Japan Patent Office.

1. Improvement of knowledge for IPR system
   - Improving knowledge of officials related to IP

2. Strengthening examination capacity
   - Improving capacity of examiners, supporting to introduce IT system for office procedures

3. Utilization of IPR
   - Supporting for utilization of IPR in universities and research institutions

4. Strengthening enforcement
   - Strengthening function of enforcement agencies and public awareness for IPR

Source: JICA (2018)
IP Technical Cooperation in Indonesia

- Project on IPR Protection and Legal Consistency for Improving Business Environment [2015-2020]

**General Public**

- **Supreme Court (SC)**
- **Ministry of Law and Human Rights**
  - Directorate General of Legislation (DGL)
  - Directorate General of Intellectual Property (DGIP)

**Other Related Agencies**
- Directorate General of Customs
- National Police
- Other Related Agencies

1) Quality of IP examination is enhanced.
2) Predictability of IP cases processing is enhanced.
3) IPR Enforcement at related agencies is improved.
4) Procedure is established for improving consistency during drafting and vetting business laws and regulations including IP laws and regulations.

Source: JICA (2018)
Technical Cooperation in Indonesia
Study Visit to Japan (various; following studies are example)

[1] Study for PPNS (October 2017)
- Civil servant investigators from DGIP and District Offices
- Study IP enforcement of Japan

- Heads and staffs from IP related sections in DGIP and District Offices
- Learn the policies for PE&A and develop their minds of IPR

http://www.jipa.or.jp/katsudou/kokusai_katsudou/171023_indonesia.html
https://www.jpo.go.jp/shoukai/soshiki/photo_galler y2017103001.htm

Source: JICA (2018)
[3] Study on IT (December 2017)

- Heads and staffs from DGIP
- JPO’s experiences of IT system establishment and management for IPR

https://www.jpo.go.jp/shoukai/soshiki/photo_galler y2017121502.htm

Source: modified from JICA (2018)

Short term experts dispatched from Japan to Indonesia

Roving Seminar in regional cities
“Raising Awareness on IP Management and Utilization for University & Industry and Small Medium Enterprises (SME)”
organized by DGIP in cooperation with JICA in March 2017 at Lombok and Ambon
### Objectives

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<th>Objective</th>
<th>Target person</th>
<th>Target country</th>
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<tr>
<td>(1) To acquire IPRs protection system</td>
<td>(1) Officers in charge of administration, legislation, policy making, or making technical suggestions in the field of intellectual property</td>
<td>Colombia, Iran, Laos, Myanmar, Nepal, Philippines, Tunisia, Ukraine, Congo, Egypt</td>
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<td>(2) To comprehend the Japanese system including IPRs protection/ utilization/creation</td>
<td>(2) More than 3 years’ practical experience in IPRs field</td>
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<td>(3) To consider better IP system for the participants’ country</td>
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### Outline (Topics)

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<th>Native (Topics)</th>
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<tr>
<td>Intellectual Property System and Economic Growth through the Promotion of Foreign Direct Investment</td>
<td>Border control of counterfeit products / IPR infringing goods by the customs</td>
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<tr>
<td>Relation between measures to IPR protection (Judiciary (civil and criminal) and Administration) and company's requests to IPR protection</td>
<td>Domestic control of counterfeit products / IPR infringing goods by the police</td>
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<td>Measures to IPR protection in companies / IP Management</td>
<td>Prior Art Search and Acceleration of IPR Examination</td>
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<td>Measures to IPR protection in Ministries of Japan</td>
<td>Human resource development/ IPR Awareness Program</td>
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<td><strong>IPR system for promoting technology transfer</strong></td>
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*Source: JICA (2018)*
Keywords/implications

ASEAN wide Engineering University Network

AUN/SEED-Net by JICA

University and Industry Linkage

Success story on university technology commercialization

Network: JICA IP cooperation for awareness raising for utilization

Thank you!

www.jica.go.jp

Homma.Toru@jica.go.jp