



LEMBAGA ILMU PENGETAHUAN INDONESIA
(INDONESIAN INSTITUTE OF SCIENCES)

Japan-ASEAN Science and Technology Innovation Platform (JASTIP)

WP3

“Bioresources and Biodiversity
for Achieving SDGs”



Event
Place, Date

www.lipi.go.id

WP3 Joint Laboratorium

Bio-resources · Biodiversity

Indonesian Institute of
Sciences (LIPI)



LIPI

- Center for Innovation
- RC Biomaterials
- RC Biology



Kyoto University

- Grad. School of Agric.,
- Res. Inst. Sustainable Humanosphere



MEXT/JST launched a new project;

Japan – ASEAN Joint Research Center



Bio-resources · Biodiversity : Biodiversity as a resource – Effective utilization of useful tropical plants

Enhancing tropical biodiversity databases to investigate useful tropical plants

Need for **ownership-based resource development** enacting the Convention on Biological Diversity for genetic resource development

Joint research focusing on the entire region is logical in terms of biology and resource studies considering overlaps of flora in the ASEAN region

Enhancing biodiversity databases to investigate useful tropical plants

R&D into tropical plant improvement, conversion into fuel and functional materials

Need for **international cooperation between ASEAN nations and developed countries** developing biomass technologies for **new environment-friendly industries** around sustainable production and advanced uses of biomass in ASEAN region, based on the **characteristics of bio-resources across the region.**

Methods to convert useful tropical plants into fuel, functional materials, and food, and joint development of high-strength, durable wood structures and materials

Satellite Center: Indonesian Institute of Sciences (LIPI)

Forty-one branches - Indonesia's largest national research institute

Partnership with two biological science research Centers

Research Center for Biology

With a world-leading collection of animals and plants, the center conducts national-level research into use of biodiversity as a resource.

Research Center for Biomaterials

National research institute researching property analysis of Indonesian timber resources, conversion to functional materials, and timber deterioration control.

ASEAN Network

LIPI Innovation Support is available for applications and social implementation

Strong partnerships with Japanese organizations (Research Center for Biology)

LIPI has strong links to NSTDA and TISTR in Thailand in the fields of biodiversity and bio-resources. Opportunities to enhance Pan-ASEAN networks in these fields.

Kyoto Univ., Kagoshima Univ., Hokkaido Univ., Tottori Univ. Faculty of Engineering, Hokkaido Univ. of Education, Hokkaido Institute of Technology, Kanazawa Univ., Univ. of Shiga Prefecture, National Institute for Environmental Studies, Forestry and Forest Products Research Institute, National Institute of Technology and Evaluation, JICA



Activity in This FY

Scientist exchange

From Japan to Indonesia

RISH, Kyoto Univ.

Takashi Watanabe	10/18-10/21
Tsuyoshi Yoshimura	11/4-8
Kenji Umemura	12/10-12/12
Takuro Mori	12/10-12/12

Faculty of Agric. Kyoto Univ.

Mamoru Kanzaki	10/18-10/21, 3/16-3/25
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Graduate School of Fisheries and Environmental Sciences, Nagasaki University

Takahiro Ohta	3/16-3/26
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The Research Institute for Humanity and Nature

Daisuke Niato	3/16-3/25
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From Indonesia to Japan

LIPI RC Biomaterial & RC Biology

Titik Kartika	11/16-12/3
Subyakto	2/16~2/21
Yusup Amin	2/16~2/24
Widya Fatriasari	2/16~2/25
Dede Heri Yuli Yanto	2/16~2/26
Titik Kartika	2/16~2/27
Bramantyo W.	2/26~3/2
Ni Putu Ratna Ayu	2/26~3/2
Danang Sudarwoko	2/16~2/30
Agung Sumarno	2/16~2/31
Andria Agusta	3/1-3/10

Workshop

Feb 17 (Wed) , 2016 15:00-18:00. Venue: Meeting room, S248, RISH, Kyoto University

- ***Introduction (JASTIP, Asia Res Node, SATREPS)***
- ***Research on Bioresources , Biodiversity and Biomass Utilization***

Current research and proposal

- ◆ **Subyakto**
- ◆ **Yusup Amin**
- ◆ **Widya Fatriasari**
- ◆ **Dede Heri Yuli Yanto**
- ◆ **Titik Kartika**
- ◆ **Bramantyo Wikantyo**
- ◆ **Ni Putu Ratna Ayu Krishanti**
- ◆ **Danang Sudarwoko Adi**
- ◆ **Agung Sumarno**
- ◆ **Toshimitsu Hata**

Discussion for international collaboration



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Research orientation in Kyoto University

Feb 2016



Possibility Joint Research Between LIPI with WP4 On Bio-Energy



BIOMASS

PROCESSES

Pretreatment

Hydrolysis/
Saccharification

**STARCHY
BIOMASS**

MECHANICAL

**Microwave heating with
acid and/or activated
carbon**

Cassava Pulp

**LIGNOCELLULOSIC
BIOMASS**

**MECHANICAL
(Grinding)**

**Enzymatic;
Acids combined
with microwave
heating**

**Sugarcane Bagasse
Oil Palm Empty Fruit Bunch
Oil Palm Fronds
Rice Straw
Bamboo**

**BIOLOGICAL
(White Rot Fungi)**

**PHYSICO-CHEMICAL
(Autoclave, Microwave,
Pressurized reactors,
Acids, Alkalies)**

Woods (fast growing species)

Joint Labo Coordinator



Japan-ASEAN Joint Research Center

JASTIP Bioresource and Biodiversity Joint Laboratory



Kyoto University - LIPI



Ririn Dyah Wijayanti

Planning for Next FY (2016-2017)

- ***Set up Joint laboratory in RC Biology and RC Biomaterials***
- ***Scientist exchange and collaboration study***
- ***WP3 Symposium in Jun, 2016***
- ***Joint Symposium of WP3 and HSS in Autumn, 2016***



A scenic view of a dense, green forest with a river winding through it. The trees are tall and lush, with sunlight filtering through the canopy. The river is calm, reflecting the surrounding greenery. The text "Thank You" is written in a white, cursive font across the center of the image.

Thank You