The SUIJI International Seminar 2013 in Kochi

REPORT

Promoting Sustainable Agriculture in the Tropics through Higher Education and Research Network between Indonesia and Japan

SIX-UNIVERSITY INITIATIVE
JAPAN INDONESIA

August 28th-29th, 2013
Southern City Hotel, Nankoku, Kochi

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AGENDA SEMINAR SUIJI III
Kochi, 28-30 August 2013

Theme: How does the university involve the local community? (partnership between the university and the local community, Service-Learning)

Constitution: Indonesia - Gadjah Mada University(UGM), Bogor Agricultural University(IPB), Hasanuddin University(UNHAS)
Japan – Ehime University, Kagawa University, Kochi University

Place: Southern City Hotel (933 Myoken, Nankoku-city, Kochi-ken Phone:088-863-2000)

Wednesday, 28 August 2013: Arrival of Participants and Preparation, Operating Council

- 13:00 – 16:00 Preparation for Student Forum; Participants: Student (Venue: Takasago Hall) Registration and Check-in at the hotel
- 17:00 – 18:00 **The Operating Council Meeting** (Selection of the next director and vice director, Action plans for 2013, Memorandum of the SUIJI Service Learning Program, Kochi Proclamation)
  Participants: Rectors, SUIJI Coordinator, etc. for academic collaboration from each member (Venue: Crystal Hall)
- 18:00 – 19.30 **Welcome Dinner**; Paricipants: Rectors, university members and delegates; (venue: Kohrin Hall)

Thursday, 29 August 2013: SUIJI Seminar Plenary

(venue: Keigetsu Hall)

08:00 – 08:50 Registration

08:50 – 09:00 Opening Remarks from the Host — President Kochi University

09:00 – 11:00 Symposium "Learning with/from communities: building partnership between the university and the local community, through the Japan-Indonesia Service-Learning program" 5 speakers

- 09:00-09:20 Prastowo (Head of Research and Community Services Institut, IPB)
- 09:25-09:45 Zainal (Secretary, Student Service Unit, UNHAS)
- 09:50-10:10 Wahyu Supartono (Faculty of Agricultural Technology, UGM)
- 10:15-10:35 Toshihiko Shiozaki (General Education Center, Kochi)
- 10:40-11:00 Hiroshige Nishina (Dean, Faculty of Agriculture, Ehime)

Parallel Session:

A. Scientific Lecturer/Researcher Forum (Thematic): Japan-Indonesia collaboration research for development

Time	Venue: Garden Hall	Venue: Crystal Hall
11:00-11:20	Nursigit Bintoro (Vice Dean, Faculty of Agricultural Technology, UGM)	Shushi Sato (Associate Professor, Faculty of Agriculture, Kochi)
11:20-11:40	Hirotoshi Tamura (Professor, Graduate School of Agriculture, Kagawa)	Indrabayu (Lecturer, Department of Electrical Engineering, UNHAS)
11:40-12:00	Edy Hartulistiyoso (Directorate of Collaboration and International Programs, IPB)	Hiroki Oue (Professor, Department of Bioresource, Faculty of Agriculture, Ehime)
12:00-12:30	Poster session	Poster session

B. Student Forum (1): Interim report for Service-Learning program; report by students who came back from site, Chair: Working Group
Venue: Takasago Hall

11:00 – 12:30 5 Presenter @15 minutes
Discussion 15 minutes

Venue: Kohrin Hall

12:30 – 13:45 Lunch Break/Photo session

C. Student Forum (2): Discussion on future SUIJI student network, Chair: Working Group
Venue: Takasago Hall

13:45 – 15:30 Discussion on future student network

D. Rector Forum: Discussion on strategy of partnership between the university and the local community, placement of SUIJI, Chair: Kochi
Venue: Keigetsu Hall

13:45-16:45 (1) Greeting Speech 13:45-14:05
Koji Kitayama, Higher Education Bureau, Ministry of Education, Culture, Sports, Science and Technology
M. Iqbal Djawad, Educational & Culture Attaché, Indonesian Embassy in Tokyo
(2) University Presentation
Question and answer session 15minutes each
14:25-14:40 Sri Raharjo (Deputy Head, Research Division, Institute of Research and Community Service, UGM)
14:45-15:00 Herry Suhardiyanto (Rector, IPB)
15:05-15:20 Dadang Suriamihardja (Vice Rector, UNHAS)
15:20-15:50 Coffee Break
15:50-16:05 Yasunobu Yanagisawa (President, Ehime)
16:10-16:25 Seigo Nagao (President, Kagawa)
16:30-16:45 Hiroshi Wakiguchi (President, Kochi)

Plenary (Venue: Keigetsu Hall)

16:45 – 17:45	(1) Signing MOA on SUIJI Program 2013/2014	16:45-17:00
	Signing Kochi Declaration 2013 (representative of each university)	
	(2) Hand over Director SUIJI from Kochi to UNHAS,	17:05-17:20
	(3) Closing Remarks by next Director SUIJI (Rector UNHAS)	17:25-17:45
18:00 – 20:00	Reception(Venue: Kourin Hall)	
	Cultural Performance	Students

Friday, 30 August 2013: Excursion and Go back to respective university

09:00 – 14:00 Excursion to Makino Botanical Garden and Kochi Castle
Participants: Rector, Scientific Lecturer and Researcher

第 3 回 SUIJI セミナー予定表(日本　高知、2013 年 8 月 28 日～30 日)

テーマ：　「大学は地域とどうかかわるのか（地域協働・サービスラーニング)」
構成大学：インドネシア 3 大学-ガジャマダ大学（UGM)、ボゴール農業大学(IPB)、ハサヌディン大学（UNHAS)
　　日本 3 大学-愛媛大学、香川大学、高知大学　※2013 年は、高知大学が機構長、ハサヌディン大学が副機構長
開催場所：サザンシティホテル（高知県南国市明見 933　 TEL 088-863-2000）

セミナー予定表

2013 年 8 月 28 日(水)　参加者の到着と準備、運営協議会

13：00～16：00　**学生フォーラム準備**；参加者：学生（開催場所：高砂の間）
　　受付(出席者確認)
17：00～18：00　**運営協議会**(次期機構長及び次期副機構長の選任について、2013 年度の活動計画案、SUIJI
　　サービスラーニングプログラム覚書について、高知宣言について)
　　参加者：学長（委員)、SUIJI ｺｰﾃﾞｨﾈｰﾀｰなど（開催場所：ｸﾘｽﾀﾙﾎｰﾙ)
18：00～19：30　**ウエルカムディナー**；参加者（学長と代表者；開催場所：光琳の間）

2013 年 8 月 29 日(木)　SUIJI セミナー　総会

（開催場所：桂月の間）
8：00～ 8：50　受付(出席者確認)
8：50～ 9：00　機構長から歓迎挨拶　高知大学長 脇口　宏
9：00～11：00　シンポジウム「地域との学び、地域からの学び：
　　日本―インドネシア連携によるサービスラーニングを軸にした大学―地域間協働の
　　発展的展開に向けて」　発表者 5 名
　　9：00～ 9：20　Prastowo（ボゴール農業大学 研究社会貢献機構長）
　　9：25～ 9：45　Zainal（ハサヌディン大学 学生コミュニティサービスユニット秘書）
　　9：50～10：10　Wahyu Supartono（ガジャマダ大学 農工学部 国際交流担当）
　　10：15～10：35　塩崎　俊彦（高知大学 総合教育センター）
　　10：40～11：00　仁科　弘重（愛媛大学 農学部学部長）

分科会：

A：自然科学の講演/研究者のフォーラム(主題：日―イ共同研究の発展的展開に向けて)

時間	開催場所：ｶﾞｰﾃﾞﾝﾎｰﾙ	開催場所：ｸﾘｽﾀﾙﾎｰﾙ
11:00～11:20	Nursigit Bintoro （ガジャマダ大学農工学部 副学部長）	佐藤　周之 （高知大学 農学部 准教授）
11:20～11:40	田村　啓敏 （香川大学 農学研究科 教授）	Indrabayu （ハサヌディン大学 電気工学科 講師）
11:40～12:00	Edy Hartulistiyoso （ボゴール農業大学 国際協働機構長）	大上　博基 （愛媛大学 農学部 生物資源学科 教授）
12:00～12:30	ポスター・セッション	ポスター・セッション

B：学生フォーラム(1)：サービスラーニング中間発表：現場から戻ったばかりの学生による報告

議長：特任教員等

（開催場所：高砂の間）

11：00～12：30　発表者 5 名　各 15 分

討論 15 分

12：30～13：45　**昼食/写真撮影　場所：光琳**

C：学生フォーラム(2)：将来の SUIJI 学生ネットワークについて　議長：特任教員等

（開催場所：高砂の間）

13：45～15：30　将来の学生ネットワークについて討論

D：学長フォーラム：各大学の地域協働の取組と SUIJI の位置づけについて　議長：高知大学

（ 開催場所：桂月の間）

13：45～16：45

(1)　挨拶

- 文部科学省高等教育局付　北山 浩士 氏　13：45～13：55
- 駐日インドネシア共和国大使館 教育担当　M. Iqbal Djawad　氏　13：55～14：05

(2)　各大学提案・質疑応答　各 15 分程度　各大学長等

14：15～14：30　Sri Raharjo（ガジャマダ大学 研究コミュニティサービス研究所 研究部門 副長）

14：35～14：50　Herry Suhardiyanto（ボゴール農業大学 学長）

14：55～15：10　Dadang Suriamihardja（ハサヌディン大学 副学長）

15：10～15：40　休憩

15：40～15：55　柳澤　康信（愛媛大学 学長）

16：00～16：15　長尾　省吾（香川大学 学長）

16：20～16：35　脇口　宏（高知大学 学長）

高知宣言（開催場所：桂月の間）

16：45～17：45　**高知宣言　署名**（各大学代表者）

(1) SUIJI サービスラーニングプログラム覚書署名調印（各大学代表者）16：45～17：00

(2) 高知大学からハサヌディン大学へ SUIJI 機構長の引継　17：05～17：20

(3) 閉会挨拶（次期 SUIJI 機構長 ハサヌディン大学長）　17：25～17：45

18：00～20：00　**レセプション**（場所：光琳の間）

文化発表　学生など

2013 年 8 月 30 日(金)エクスカーションと参加者の各大学への帰任

9：00～14：00　**エクスカーション　牧野植物園、高知城　など**

参加者:学長、研究者など

SUIJI Operating Council
(Six University Initiative Japan Indonesia)

SUIJI Operating Council Meeting
Topic for Discussion

Time & Date: 17:00-18:00, August 28, 2013
Place: Crystal Hall, Southern City Hotel, Nankoku, Kochi
Moderator: Consortium director Hiroshi Wakiguchi

Topic for Discussion

1. Appointment of the next director and vice director of the SUIJI Consortium
2. SUIJI Agenda within the 2013 academic year（Appendix A）
   (1) Assistance to obtain VISA
   (2) Double degree program of doctoral course
   (3) Embodiment of associate member(s)
   (4) Promotion of collaborative research
   (5) Students exchange
3. Memorandum of Agreement for SUIJI Service Learning Program（Appendix B）
4. Kochi declaration of SUIJI

SUIJI コンソーシアム運営協議会

日時：2013 年 8 月 28 日　17:00-18:00
場所：高知県南国市サザンシティーホテル　クリスタルホール
議長：2013SUIJI 機構長　脇口　宏

議事：

１．次期機構長及び次期副機構長の選任について
２．２０１３年度の活動計画案について（Appendix A）
　　（１）学生の査証取得
　　（２）ダブルディグリーの推進について
　　（３）準会員（協力校）制度の具体化について
　　（４）共同研究促進の具体化について
　　（５）学生交流活動計画案について
３．SUIJI-SLPに関わる覚書について（Appendix B）
４．高知宣言について

Document No.1

1.Appointment of the next director and vice director of the SUIJI Consortium

The next Director and Vice Director for the term beginning April, 2014 will be selected as follows:

Director：Rector of Universitas Hasanuddin(UNHAS)
Vice Director：President of National Corporation University Kagawa University

1. 次期機構長及び次期副機構長の選任について

次期機構長　:ハサヌディン大学長
次期副機構長　: 香川大学長

Document No.2

SUIJI Agenda 2013(Appendix A)

The SUIJI Consortium will carry out the following Agenda within the 2013 academic year.

Agenda 1
The members of SUIJI Consortium should assist to obtain VISA for each Program students.

Agenda 2
The members of SUIJI Consortium will exert efforts to work out the details (formulate framework) about SUIJI Double Degree Program for its early realization.

Agenda 3
The SUIJI Consortium will begin talks concerning associate members of SUIJI according to Terms Regarding the Agreement for a SUIJI Consortium.

Agenda 4
The members of SUIJI Consortium will exert efforts to promote collaborative research.

Agenda 5

(1) The SUIJI Consortium will implement SUIJI-SLP according to the following:

a) The SUIJI Consortium will carry out "Six-University Coordinative Service-Learning Program at the Rural Communities in Japan and Indonesia" under the JSPS Re-Inventing Japan Project.
b) Fifty-five students will go from Japan to Indonesia under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
c) Thirty-seven students will go from Indonesia to Japan under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
d) The number of students in the programs mentioned above is subject to change.

(2) The SUIJI Consortium will implement SUIJI-JDP according to the following:

a) Eight students will go from Japan to Indonesia under the JSPS Re-Inventing Japan Project and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
b) Six students will go from Indonesia to Japan under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
c) The number of students in the programs mentioned above is subject to change.

(3) The members of SUIJI Consortium will exert efforts to acquire funding for the SUIJI-SLP and SUIJI-JDP.

付録 A

SUIJI 2013 行動計画

SUIJI コンソーシアムは 2013 年度内に以下の事項について取り組む。

行動計画１
SUIJI コンソーシアム構成大学は、プログラム参加学生のビザ取得について支援する。

行動計画２
SUIJI コンソーシアム構成大学は、ダブルディグリープログラムの早期実現のため組織的な枠組みを作りだすことに努力する。

行動計画３
SUIJI コンソーシアムは、SUIJI コンソーシアム協定書の規約に沿って、準会員に関する協議を始める。

行動計画４
SUIJI コンソーシアム構成大学は、共同研究の実施に努力する。

行動計画５
（１）SUIJI コンソーシアムは、以下に示す事業を活用して SUIJI-SLP を遂行する。
- a) 文部科学省「大学の世界展開力強化事業」による「日本とインドネシアの農山漁村で展開する６大学協働サービスラーニング・プログラム」を実施する。
- b) 上記事業および JASSO「持続的熱帯農学」により日本からインドネシアへ学生を５５人派遣する
- c) 上記事業および JASSO「持続的熱帯農学」によりインドネシアから日本へ学生を３７人受入れる
- d) 各プログラムにおける上記学生数は変動することがある。

（２）SUIJI コンソーシアムは、以下に示す事業を活用して SUIJI-JDP を遂行する。
- a) 文部科学省「大学の世界展開力強化事業」による「日本とインドネシアの農山漁村で展開する６大学協働サービスラーニング・プログラム」および JASSO「持続的熱帯農学」により日本からインドネシアへ学生を８人派遣する。
- b) 上記事業および JASSO「持続的熱帯農学」によるインドネシアから日本へ学生を６人受入れる
- c) 各プログラムにおける上記学生数は変動することがある。

（３）SUIJI コンソーシアム構成大学は、SUIJI-SLP と SUIJI-JDP を推進するために必要な予算の獲得に努力する。

Document No.3

Memorandum of Agreement for the SUIJI Service Learning Program (SUIJI-SLP)(Appendix B)

Ehime University, Kagawa University and Kochi University of Japan and Universitas Gadjah Mada (UGM), Bogor Agricultural University (IPB) and Hasanuddin University (UNHAS) of Indonesia agreed to the SUIJI (Six-University Initiative Japan Indonesia) Consortium concept and concluded "An agreement for the SUIJI (Six-University Initiative Japan Indonesia) Consortium for Sustainable Agriculture in the Tropics" on March 16, 2011. The parties agree to the memorandum below to set up Service Learning Program (SUIJI-SLP) based on the second clause of the agreement.

SUIJI-SLP is a program in which SUIJI-SLP students (Students) will participate in the SUIJI Service Learning (SL) which is to be carried out in rural and marine areas by the SUIJI Consortium member universities, and learn, through experience, about the issues related to the site. Students who acquired the predetermined credits can be certified by the SUIJI Consortium as Servant Leader.

1. SUIJI-SLP

(a) An outline of SUIJI-SLP

SUIJI-SLP consists of SL which is to be carried out by the six universities. Students take part in any of the SL carried out in their home country and abroad. SUIJI Servant Leader Training Center (main office: Ehime University) will coordinate the implementation of the SL.

(b) SUIJI-SLP Education System

Students, in principle, take the subjects Introduction to Regional Futurability, Culture Sharing for Futurability, and recommended subjects (Survival Communication, etc.), offered by their home university, and then take part in SL in their home country and abroad. Credits will be awarded to the Students by their home university.

(c) Host University for implementing SLP

The university which holds SL will be referred to as the host university for the students participating in the SL.

2. Students

(a) Applicants

Students enrolled in a member university of the SUIJI Consortium are eligible to participate in the SUIJI-SLP.

(b) Student Selection

Rules regarding the selection of the Students will be determined separately.

(c) Status of students participating in SL abroad

Students participating in SL abroad will be given enrollment status (Short-term international student, Short-term exchange student, Special Auditor, etc.) by the host university.

3. Recognition of SL credits

Each university will award credits to Students who finish SUIJI-SLP according to the regulations at home university.

4. Qualification as Servant Leader

Students who acquired the required credits can apply to be qualified as Servant Leader by the SUIJI Consortium.

5. Tuition and Fees at the Host University

The host university will not charge any examination, admission and tuition fee.

6. Expenses for SUIJI-SLP

(a) SUIJI Consortium will make an effort to secure a budget for SLP.
(b) Students will pay the expenses that cannot be covered by (a), such as travel expenses, room and board and travel insurance.
(c) The home and host universities will discuss the project expenses when necessary.

7. Intellectual Property Rights

Rules regarding intellectual property rights will be determined separately.

8. Risk Management

If a problem or accident occurs during the SUIJI-SLP, the home and host universities, with the coordination of SUIJI Servant Leader Training Center (main office: Ehime University), will deal with the problem in an appropriate manner.
In addition to the provisions of this memorandum, detailed requirements concerning SUIJI-SLP exchange of students and academic staff are provided in Appendix D ("Notes on risk management for the exchange of students and researchers under SUIJI ") of the "Minutes of Six Universities SUIJI Promotion Meeting for SUIJI Service Learning Program and Joint Degree program."

9. Terms of the Memorandum

This memorandum shall remain in force for a period of five years, beginning on the date this memorandum is signed. The memorandum may be changed or modified according to the agreement of the SUIJI Consortium. This memorandum may be terminated according to the agreement of all the parties at any time even though the term is not yet over.

10. Details

In addition to the provisions of this memorandum, detailed requirements concerning the exchange of students and academic staff participating in SUIJI-SLP will be determined separately.

11. Additional

Six copies of this memorandum will be prepared in English. All six copies will be equally official. Each party shall keep one signed copy.

Additional Clause

This Memorandum of Agreement for the SUIJI Service Learning Program (SUIJI-SLP) goes into effect from April 1, 2013.

Date:

Signature:

Rector
Universitas Gadjah Mada(UGM)
Indonesia

Date:

Signature:

President
National University Corporation
Ehime University
Japan

Date:

Signature:

Rector
Bogor Agricultural University (IPB)
Indonesia

Date:

Signature:

President
National University Corporation
Kagawa University
Japan

Date:

Signature:

Rector
Hasanuddin University (UNHAS)
Indonesia

Date:

Signature:

President
National University Corporation
Kochi University
Japan

付録 B

SUIJI サービスラーニング・プログラム（SUIJI-SLP）覚書

SUIJI（Six-University Initiative Japan Indonesia）コンソーシアムを構成する日本国国立大学法人愛媛大学，国立大学法人香川大学，国立大学法人高知大学とインドネシア共和国ガジャマダ大学，ボゴール農業大学，ハサヌディン大学は，熱帯農業に関する SUIJI コンソーシアム協定書を２０１１年３月１６日に締結した。この協定書第２項に基づき，学士課程の SUIJI サービスラーニング・プログラム（以下「SUIJI-SLP」という。）を創設するための以下に記載する事項について同意する。

本プログラムは， SUIJI コンソーシアムを構成する６大学が農山漁村地域で実施する SUIJI サービスラーニング（以下「SL」という。）に SUIJI-SLP 履修学生（以下「履修生」という。）が参加し，現実の課題に取り組みながら体験を通して学ぶプログラムである。SUIJI-SLP を履修し所定の単位を取得した履修生は， SUIJI コンソーシアムからサーバント・リーダーとしての資格認定を受けることができる。

１．SUIJI-SLP

(a) SUIJI-SLP の概略

SUIJI-SLP は， ６大学が実施する SL で構成され，履修生は国内 SL 及び海外 SL において６大学が実施する SL のいずれかを履修する。その実施においては, SUIJI サーバント・リーダー養成センター（主幹：愛媛大学）が調整にあたる。

(b) SUIJI-SLP の履修方法

履修生は，原則として，所属大学が開講する地域未来創成入門，カルチャーシェアリング及び推奨科目（サバイバル・コミュニケーションなど）を履修したうえで， 国内SL及び海外SLを履修する。単位認定は履修生の所属大学が行う。

(c) SLP の実施における受入大学

履修生が参加する SL 実施大学が受入大学となる。

２．履修生

(a) 対象学生

SUIJI コンソーシアム構成大学に在籍する学生は SUIJI-SLP に参加することができる。

(b) 履修生の決定方法

履修生の決定に当たって必要な事項については，別途定める。

(c) 海外 SL に参加する履修生の受入大学における身分

海外 SL に参加する履修生を受け入れる大学は，履修生に対して在籍身分（短期交流学生，特別聴講学生など）を与える。

３．SL 単位認定

各大学は，SL（国内・海外）を所属大学の規程に従って単位認定する。

４．サーバント・リーダー資格認定

SUIJI-SLP を履修し所定の単位を取得した学生は，申請により，SUIJI コンソーシアムが認定するサーバント・リーダー資格を取得することができる。

５．受入大学における授業料等

受入大学は履修生に関わる検定料・入学料及び授業料を徴収しないものとする。

６．SUIJI-SLP に係る経費

(a) SUIJI コンソーシアムは，SLP に関わる経費の確保に努める。

(b) 履修生は，原則として，旅費，宿泊費，旅行保険費等のうち，（a）で確保されない経費を支払うものとする。

(c) 派遣大学と受入大学は必要に応じて事業実施経費の負担について協議する。

７．知的所有権

知的所有権については，別途定める。

８．リスク管理

SUIJI-SLP の実施において不測の事態に遭遇した場合には，SUIJI サーバント・リーダー養成センター（主幹：愛媛大学）の調整のもと，派遣大学と受入大学が協議し善処方をはかる。

なおこの覚書に定めるもののほか，SUIJI-SLPに係る学生と教員の派遣・受入に関して必要な具体的事項は，「SUIJIサービスラーニング・プログラム及び共同学位プログラム（SUIJI-JDP）のための第２回６大学合同実務者会議議事要録」の付録D（「SUIJIの学生及び教員の派遣・受入のためのリスクマネジメントについての覚書」）にて別途定める。

９．有効期間

この覚書は，調印の日から発効し，５年間有効とする。ただし，SUIJI コンソーシアム構成大学の合意に基づき，変更又は更新することができる。また，この覚書は有効期間内であっても，SUIJI コンソーシアム構成大学の合意が得られた場合は，いかなる時点においても解消することができる。

１０．具体的事項

この覚書に定めるもののほか，SUIJI-SLPに参加する学生と教員の派遣・受入に関して必要な事項は別途定める。

１１．その他

この覚書は，英語で６部を等しく正文として作成し，各自１部を保有するものとする。

附則

この覚書は，２０１３年４月１日から適用する。

年　月　日
署名
ガジャマダ大学長

年　月　日
署名
愛媛大学長

年　月　日
署名
ボゴール農業大学長

年　月　日
署名
香川大学長

年　月　日
署名
ハサヌディン大学長

年　月　日
署名
高知大学長

Document No.4

Kochi Declaration of the SUIJI Forum 2013

Herewith, the Presidents of Ehime University, Kagawa University and Kochi University of Japan and the Rectors of Universitas Gadjah Mada (UGM), Bogor Agricultural University (IPB) and Universitas Hasanuddin (UNHAS) of Indonesia agree to start SUIJI Service Learning Program (SUIJI-SLP) in the SUIJI Consortium in Sustainable Agriculture Development under the Memorandom of Agreement enacted on August 29th, 2013 and implement activities mentioned in "SUIJI Agenda 2013" attached herewith.

Kochi, 29 August 2013

Signature:_____
Rector
Universitas Gadjah Mada (UGM)
Indonesia

Signature:_____
President
National University Corporation
Ehime University
Japan

Signature:_____
Rector
Bogor Agricultural University (IPB)
Indonesia

Signature:_____
President
National University Corporation
Kagawa University
Japan

Signature:_____
Rector
Universitas Hasanuddin (UNHAS)
Indonesia

Signature:_____
President
National University Corporation
Kochi University
Japan

SUIJI フォーラム 2013 高知宣言

ここに、日本国愛媛大学、香川大学、高知大学の学長ならびに、インドネシア共和国ガジャマダ大学、ボゴール農業大学、ハサヌディン大学の学長は、熱帯農業に関する SUIJI コンソーシアムのもと、2013 年 8 月 29 日に制定された SUIJI-SLP に関する覚書に基づき SUIJI サービス・ラーニングを開始し、また「SUIJI2013 行動計画」に基づき、諸活動を推進していくことに同意する。

２０１３年8月２９日

署名:＿＿＿＿＿＿＿＿＿＿
ガジャマダ大学長

署名:＿＿＿＿＿＿＿＿＿＿
国立大学法人愛媛大学長

署名:＿＿＿＿＿＿＿＿＿＿
ボゴール農業大学長

署名:＿＿＿＿＿＿＿＿＿＿
国立大学法人香川大学長

署名:＿＿＿＿＿＿＿＿＿＿
ハサヌディン大学長

署名:＿＿＿＿＿＿＿＿＿＿
国立大学法人高知大学長

SUIJI Seminar

SUIJI コンソーシアム運営協議会議事録

日　時：2013 年 8 月 28 日　17:10-17:50
場　所：サザンシティホテル　クリスタルホール
議　長：SUIJI 機構長　脇口　　宏
出席者：愛媛大学　柳澤 康信（やなぎさわ　やすのぶ）学長
　　香川大学　長尾　省吾（ながお　せいご）学長
　　高知大学　脇口　宏　（わきぐち　ひろし）学長
　　ガジャマダ大学　Pratikno　（プラティクノ）大学長
　　（代理Sri Raharjo(スリ　ラハルジョ）教授）
　　ボゴール農業大学　Herry Suhardiyanto(ヘリー　スハルディヤント)大学長
　　ハサヌディン大学　Idrus A Paturusi(イドルス　パトルシ)大学長

議事に先立ち，今年度の当番大学である脇口宏機構長から開会の挨拶があり，議事進行について櫻井高知大学理事（総務担当）・副学長が指名された。

議　事：

１．　次期機構長及び次期副機構長の選任について・・・資料１

櫻井高知大学理事（総務担当）・副学長から 次期機構長及び次期副機構長について資料に基づき説明があり，審議の結果，次のとおり選任した。

次期機構長　：ハサヌディン大学長
次期副機構長：香川大学長

２．　2013 年度 SUIJI 行動計画について・・・資料２

櫻井高知大学理事（総務担当）・副学長から 2013 年度 SUIJI 行動計画（案）について資料に基づき説明があり，審議の結果，これを了承した。

３．　SUIJI サービスラーニング覚書について・・・資料３

櫻井高知大学理事（総務担当）・副学長から SUIJI サービスラーニング覚書について資料に基づき説明があり，審議の結果，これを了承した。

４．　SUIJI に関する高知宣言・・・資料４

櫻井高知大学理事（総務担当）・副学長から SUIJI に関する高知宣言(案）について資料に基づき説明があり，審議の結果，これを採択した。

Summary of the Minutes for SUIJI Operating Council Meeting

Time & Date: August 28, 2013 17:10-17:50,
Place: Crystal Hall, Southern City Hotel, Nankoku, Kochi
Chair: Director of SUIJI, Hiroshi Wakiguchi
Attendee: Hiroshi Wakiguchi , President, Kochi University
Yasunobu Yanagisawa, President, Ehime University
Seigo Nagao, President, Kagawa University
Pratikno,M. Soc.Sc., Rector, Universitas Gadjah Mada (UGM)(Deputy Prof.Dr. Ir. Sri Raharjo, M.Sc, deputy of the head of research division, in Institute of Research and Community Service Universitas Gadjah Mada)
Herry Suhardiyanto, Rector, Bogor Agricultural University (IPB)
Idrus A Paturusi, Rector, Universitas Hasanuddin (UNHAS)

President Hiroshi Wakiguchi of Kochi University greeted the members as acting Director before the meeting started. Professor Katsutoshi Sakurai, Director and Vice President for General Affairs of Kochi University, was appointed the chair of the meeting.

Agenda Items:

1. Appointment of the next director and vice director of the SUIJI Consortium・・・Document No.1

   The next Director and Vice Director for the term beginning April, 2014 will be selected as follows:
   Director: Rector of Universitas Hasanuddin(UNHAS)
   Vice Director: President of National University Corporation Kagawa University

2. SUIJI Agenda for the 2013 academic year・・・Document No.2

   Prof. Sakurai, Director and Vice President for General Affairs, Kochi University, explained the SUIJI Agenda 2013 of Appendix A. After deliberation, the Agenda was approved.

3. Memorandum of Agreement for SUIJI Service Learning Program・・・Document No.3

   Prof. Sakurai, Director and Vice President for General Affairs, Kochi University, explained Memorandum of Agreement for SUIJI-SLP of Appendix B. After deliberation, the MOA was approved.

4. Kochi Declaration of SUIJI・・・Document No.4

   Prof. Sakurai, Director and Vice President for General Affairs, Kochi University, explained the Kochi Declaration of SUIJI. After deliberation, it was adopted.

Greetings at the Opening Ceremony of the SUIJI Seminar

Ladies and gentlemen, on behalf of the host of this year's seminar, let me extend you a hearty welcome. Thank you very much for attending the Third SUIJI Seminar.

I am also very grateful and intensely inspired by the presence of the people from the Department of National Education of Indonesia and the Ministry of Education, Culture, Sports, Science and Technology of Japan.

Since Kochi is located in one of the hottest regions in Japan, and due to the high humidity peculiar to this area, I am afraid that even people from Indonesia might feel it is extremely hot and humid here.

Last year we attended the Seminar at Bogor Agricultural University in Indonesia which produced many significant outcomes. I would like to express our sincerest gratitude once again to all the people concerned, especially our honorable guests from Indonesia.

This year's Seminar hosted by Kochi University also consists of three discussion assemblies: the Researchers' Forum, the Students' Forum and the Presidents' Forum. I am confident that we will have vigorous participation in the discussions and produce highly significant results.

For the past year, Nineteen Indonesian students came to Japan, of whom six studied at Kochi University. Thirteen students were sent from Japan to Indonesia and I believe their SUIJI collaborations are proceeding with greatest smoothness.

Many Japanese universities are facing a big wave of restructuring and Kochi University no less is reinvigorating our education structuring. The Faculty of Agriculture, which is involved in SUIJI, is no exception. We plan to establish an educational structure that deals with the ocean's resources, ranging from its surface to the sea bed.

When this plan of reinvigoration of the Faculty of Agriculture is fulfilled, it will

be reborn as a comprehensive research and education organization that can deal with natural resources, ranging from forests, rivers, and farmlands to the ocean.

We will also be able to cooperate with one another in very numerous ways in order to achieve our main objective of SUIJI, which is to further develop subtropical agriculture and produce closer links, so that Kochi University's contribution will be further perfected.

The graduation ceremony of Bogor Agricultural University that I attended last year was very dignified and impressive. Since this SUIJI Seminar does not coincide with our graduation ceremonies, there will be no opportunities for any of you to observe these graduation ceremonies during the Seminar. However, we shall provide an excursion for you to visit the main places of interest in Kochi City.

Kochi is the city where a large number of the heroes of 1868 Meiji Restoration were born, and even after the Restoration, many further heroes were produced from this region.

It is also important to remember that this region has benefited from the contributions of many heroic women.

You will certainly be able to experience the enlightened and liberal cultural atmosphere of the city on the excursion, so if you are interested and have time to do so, please avail yourself of the opportunity.

Once again, I look forward confidently to a greatly successful outcome from this two-day SUIJI Seminar. In conclusion, may I offer you the heartiest welcome on behalf of your host Kochi University? Thank you very much.

President of Kochi University
Hiroshi Wakiguchi

Symposium:

Learning with/from communities: building partnership between the university and the local community, through the Japan-Indonesia Service- Learning program

- Prastowo (Head of Research and Community Services Institut, Bogor Agricultural University)
- Zainal (Secretary, Student Service Unit, Hasanuddin University)
- Wahyu Supartono (Faculty of Agricultural Technology, Gadjah Mada University)
- Toshihiko Shiozaki (General Education Center, Kochi University)
- Hiroshige Nishina (Dean , Faculty of Agriculture, Ehime University)

KULIAH KERJA PROFESI
Institut Pertanian Bogor
(KKP-IPB)

Oleh: Prastowo
LPPM-IPB

Topik Bahasan:

1. Pendahuluan
2. Urgensi
3. *Learning Outcome*
4. Manfaat
5. Peran Pemangku Kepentingan
6. Mekanisme Pelaksanaan
7. Bobot SKS
8. Sumber Pendanaan
9. Kepanitiaan

1. Pendahuluan:

1. Kegiatan pengabdian kepada masyarakat di IPB telah dimulai sejak Tahun 1965, dibawah pengelolaan Biro Pengabdian Kepada Masyarakat (Bipenmas IPB).
2. Salah satu kegiatan pengabdian masyarakat yang dilakukan oleh mahasiswa IPB adalah Kuliah Kerja Nyata (KKN).
3. Mulai Tahun 2003, kegiatan KKN diganti nama menjadi Kuliah Kerja Profesi (KKP).
4. KKP-IPB mengasah *softskill* kemitraan, kerjasama tim lintas bidang ilmu dan *leadership* mahasiswa dalam mengelola suatu program kerja di lapangan.

2. Urgensi

Kuliah Kerja Profesi (KKP) di IPB dimaksudkan untuk memperkuat kemandirian, kemitraan dan kepemimpinan mahasiswa (*softskill*) dengan menerapkan sinergi inovasi IPTEKS lintas bidang ilmu (*hardskill*) yang efektif untuk memenuhi realita kompleksitas kebutuhan hidup masyarakat.

2. Urgensi


Kompetensi Sarjana
'Pemberdaya'
Kemampuan Berkomunikasi konvergen secara efektif
Ketrampilan berfikir logis (berfikir sistem)
Kemampuan bersinergi kerja Dalam Tim
Penguasaan Potensi dan Kebutuhan (real needs & felt needs)
Akses & Penguasaan Inovasi
Berwawasan luas dan *networking*
Sikap Kritis thd kebutuhan (Ketrampilan analisis masalah)
Keinovatifan/ Penguasaan Teknologi Informasi & disain komunikasi multi media
Hard Skill
Soft/Life Skill

PENDIDIKAN KARAKTER DLM 4 PILAR PENDIDIKAN UNESCO

- LEARNING TO KNOW
- LEARNING TO DO
- LEARNING TO BE
- LEARNING TO LIVE TOGETHER

2. Urgensi

Ketua WMA-IPB mengamanatkan perlunya upaya serius dalam :

1. Peningkatan empati Civitas Akademika thd petani. Dlm bid pendidikan *stakeholder* memandang perlu peningkatan empati mahasiswa dan staf pengajar IPB kepada petani, nelayan dan masyarakat pedesaan.
2. Empati ini dapat dibangun dg revitalisasi Kuliah Kerja Profesi (KKP), Mhs Bertani, kunjungan ke daerah pedesaan, kewajiban mhs untuk berinteraksi dengan petani dan nelayan serta warga pedesaan.

3. Learning Outcome

Setelah mengikuti KKP mahasiswa mampu :

1. Merancang dan melaksanakan program pemberdayaan (mengidentifikasi masalah, merumuskan program berupa pembuatan proposal, mengevaluasi program berupa laporan kegiatan) dalam bidang *hardskill* bidang keilmuan mahasiswa.
2. Memperkuat *softskill* khususnya dalam kemandirian, kemitraan, dan kepemimpinan (*outonomy, partnership, leadership*, atau *networking* dan *social relationship*).

3. Learning Outcome

Mengacu aspek *learning outcome* pertama, setelah mengikuti KKP mahasiswa mampu :

1. Mengidentifikasi dan menganalisis permasalahn masyarakat, khususnya bidang pertanian dalam arti luas dan lingkungan yang relevan dalam bidang keilmuannya
2. Merumuskan alternatif solusi dalam pemecahan masalah khususnya bidang pertanian dalam arti luas dan lingkungan sesuai dengan bidang keilmuannya.
3. Menerapkan bidang ilmunya secara etis dalam kompleksitas kehidupan masyarakat.

3. *Learning Outcome*

Mengacu aspek *learning outcome* kedua, setelah mengikuti KKP mahasiswa mampu :

1. Mengidentifikasi dan mengembangkan pemanfaatan potensi sumberdaya lokal secara optimal
2. Merencanakan dan mengevaluasi program secara lintas disiplin dan terintegrasi dalam mengatasi permasalahan di masyarakat.
3. Meningkatkan kepekaan, komitmen, etika, kepedulian, kemampuan komunikasi konvergen, kemitraan, dan kerjasama antar mitra akademisi, bisnis, masyarakat dan pemerintah, termasuk antar profesi dalam mengatasi permasalahan dalam masyarakat.
4. Mengembangkan jejaring kerjasama dalam upaya pemecahan masalah untuk memenuhi kebutuhan dalam dinamika kehidupan aktual di masyarakat.

4. Manfaat

Kegiatan KKP diharapkan dapat memberikan manfaat kepada semua pemangku kepentingan yang terkait kegiatan ini, yaitu meliputi

- mahasiswa,
- institusi IPB,
- masyarakat,
- pemerintah daerah dan
- dunia bisnis.

5. Peran Pemangku Kepentingan

1. Mahasiswa :
   - Fasilitator pemberdayaan masyarakat
   - Menjembatani diseminasi inovasi
2. IPB :
   - *Sharing* inovasi
3. Masyarakat :
   - *Sharing* informasi potensi dan permasalahan
   - Partisipasi dalam program KKP
4. Pemerintah :
   - Fasilitasi penyelengaraan KKP
   - Perizinan dan pembekalan KKP
   - Pendanaan program KKP
5. Dunia Bisnis :
   - Mitra sinergis dalam pengembangan usaha
   - Memanfaatkan mahasiswa dalam implementasi CSR

6. Mekanisme Pelaksanaan

Tema:

- Setiap tahun kegiatan KKP IPB mengusung suatu tema. Setiap kabupaten mempunyai tema spesifik (tematik), yg selanjutnya dijabarkan ke dalam program KKP.
- Program KKP di setiap kabupaten/kota disusun dg mempertimbangkan potensi, permasalahan dan kebutuhan daerah kerja sehingga bersinergi dg program pembangunan pemerintah daerah.
- Program kabupaten tersebut kemudian dijabarkan oleh setiap kecamatan dan desa yang menjadi unit kerja lokasi KKP, serta disesuaikan dengan bidang studi mahasiswa secara terintegrasi
- Program KKP harus fokus terhadap aspek dan atau komoditi serta berkelanjutan shg dpt mengarah kepada terbentuknya desa mitra..
- Tema KKP tersebut dapat berasal dari IPB atau kesepakatan Pemerintah Daerah dengan IPB.

6. Mekanisme Pelaksanaan

Peserta:

- Mahasiswa program sarjana (S1) yg telah memenuhi menyelesaikan perkuliahan minimal 105 sks dengan IPK ≥ 2.00 dan telah melakukan registrasi untuk mengikuti KKBM.

Pembimbingan:

- Kegiatan KKP mahasiswa di lapangan dibimbing oleh dosen pembimbing lapang (DPL), yg ditetapkan dg surat keputusan Dekan masing-masing Fakultas berdasarkan usulan dari setiap Departemen di lingkungan Fakultas tersebut.

6. Mekanisme Pelaksanaan

Lingkup Kegiatan KKP meliputi :

1. Persiapan
2. Kuliah pembekalan
3. Penempatan mahasiswa
4. Lokakarya I
5. Pelaksanaan program
6. Supervisi, monitoring dan evaluasi
7. Penilaian aktivitas lapangan
8. Lokakarya II

6. Mekanisme Pelaksanaan

Pola Pelaksanaan (Integrasi):

Pola pelaksanaan KKP bersifat fleksibel, dapat Poli Fakultas, Poli Departemen, Mono Fakultas, atau Mono Departemen. Setiap Fakultas/Departemen memilih lokasi yang sesuai dengan kompetensi

6. Mekanisme Pelaksanaan

Lokasi:

- Lokasi KKP ditentukan dengan kriteria sbb:
  - Relevansi dengan bidang keilmuan IPB
  - Termasuk dalam kategori “desa”
  - Prioritas desa yang belum maju (tertinggal, terluar, terdepan)
  - Akses bisa dijangkau kendaraan mobil dan motor
  - Lokasi desa berdekatan di setiap kecamatan
  - Jumlah desa per kecamatan adalah 4-6 desa
  - Kesediaan Pemerintah Daerah
- Penetapan lokasi KKP tersebut sesuai dengan keinginan Fakultas/Departemen, dimana dalam satu kecamatan terdapat 5-7 desa lokasi KKBM.

7. Bobot SKS

Bobot SKS s/d Tahun 2013 sebesar 3 SKS, saat ini sedang diusulkan menjadii 4 SKS, dengan pertimbangan:

a) Kuliah pembekalan 20-24 jam (kuliah dan pratikum) layak diberikan sks 1.5
b) Pelaksanaan KKP di lapang/desa 8 minggu (setiap hari 7-8 jam), layak diberi sks 2.5

8. Sumber Pendanaan

Sumber pendanaan KKP IPB berasal dari:

- SPP mahasiswa
- Dana program LPPM IPB
- Sponsorship (penggalangan dana program oleh panitia KKP fakultas dan panitia koordinasi LPPM IPB)

9. Kepanitiaan

Penyelenggaraan KKP dilakukan oleh Panitia KKP IPB dibawah koordinasi Lembaga Penelitian dan Pengabdian Kepada Masyarakat IPB. Kepanitianan bersifat *ad hoc* yang terdiri atas:

1) Panitia Pelaksana KKP di setiap fakultas
2) Panitia Koordinasi di LPPM

Terimakasih

ボゴール農業大学における学生農村実習 (KKP-IPB)

報告者: Prastowo
ボゴール農業大学社会連携研究所（LPPM-IPB）

報告内容

1. はじめに
2. 重要なポイント
3. ラーニングアウトカム
4. 効果
5. 主体者の役割
6. 実施体制
7. 単位認定
8. 資金源
9. 実施主体

1. はじめに

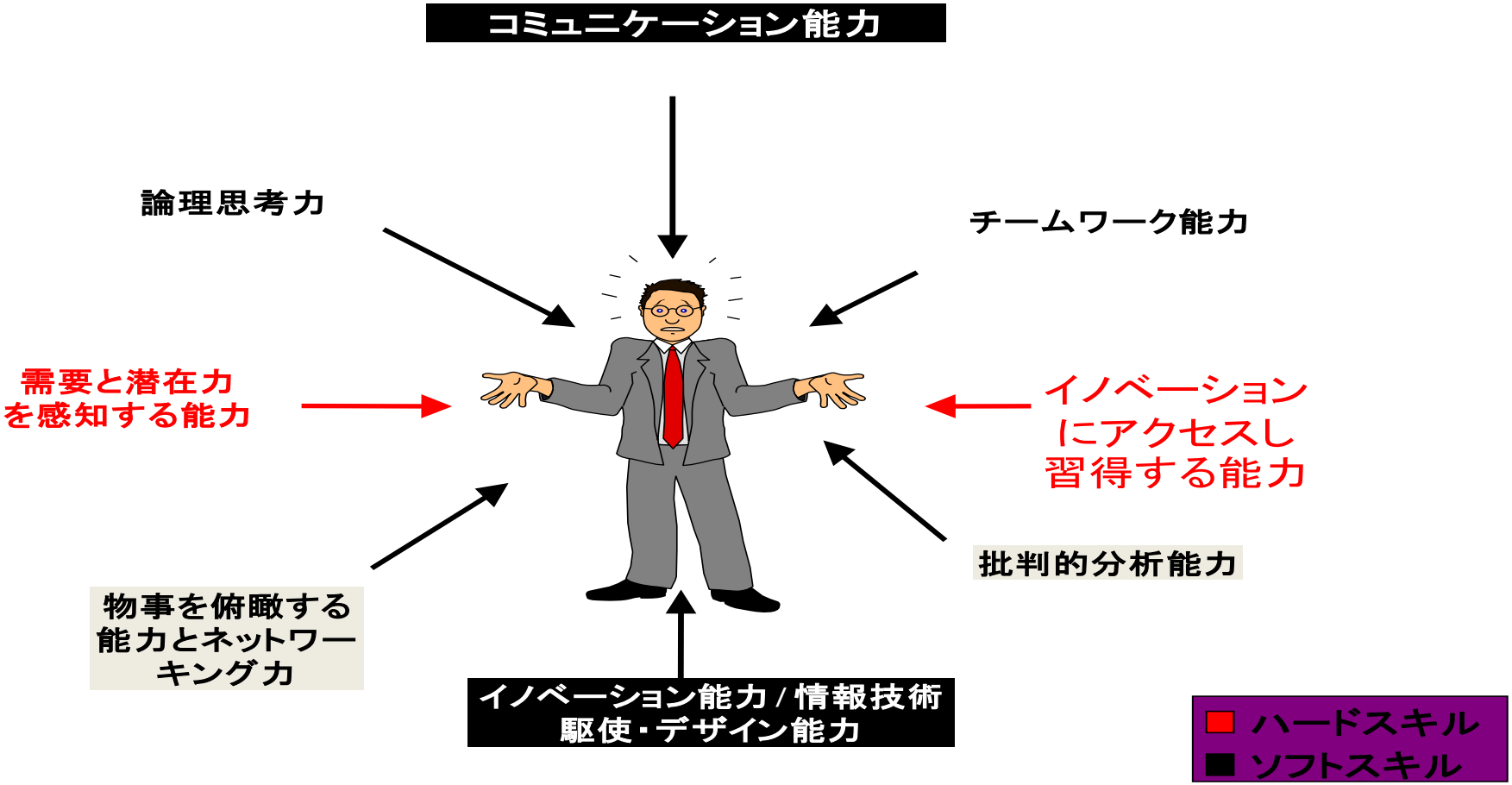
1. ボゴール農業大学（以下、ボゴール農大）における地域コミュニティ貢献活動は、社会連携部の管轄のもと1965年に開始された。
2. 学生による地域貢献活動の1つとして、KKN（Kuliah Kerja Nyata；学生農村実習）が挙げられる。
3. 2003年にKKNの名称は KKP（Kuliah Kerja Profesi；学生職業実習）に改められた。
4. ボゴール農大のKKPは、学生のチームワーク、学問分野を超えた協力といったソフトスキルと、フィールドにおいてプログラムを運営するリーダーシップ能力を養うことを主眼とする。

2. 重要なポイント

ボゴール農大のKKPは、多様化しつつある農村社会のニーズに対して、理系分野の学際的知識を効果的に適用するとともに、学生の自主自立、相互協力、リーダーシップ（等のソフトスキル）能力を高めることを目的としている。

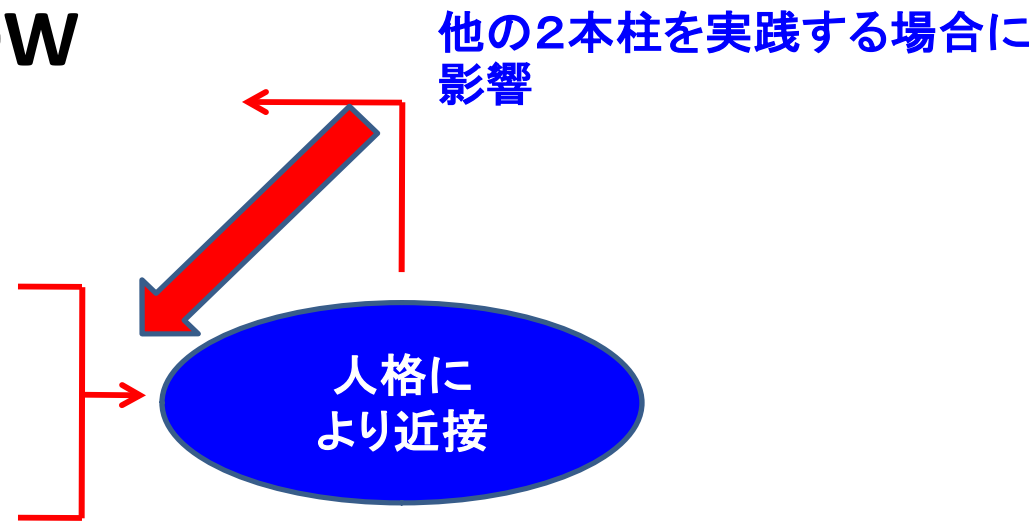
2. 重要なポイント

地域活性化を担う学士に求められる能力



ユネスコ定義による人格形成の4本柱

- LEARNING TO KNOW
- LEARNING TO DO
- LEARNING TO BE
- LEARNING TO LIVE TOGETHER



2. 重要なポイント

ボゴール農大の理事は以下の点について、真剣な努力が必要と訓示：

1. 大学人の村落民に対する共感意識を高めること。関係者は教育分野において学生と教職員の農民、漁民、村人に対する共感を高めていくよう意識づける。
2. 学生が村落を訪れ、そこでの生業に参画するなど、農民・漁民・村人と積極的に関わりをもとうとすることを義務とすることで、KKPの質的向上を図り、上記の点を実現する。

3. ラーニングアウトカム

KKPに参加後の学生は以下の能力を身につけることが期待される：

1. 地域活性化プログラムの立案と実施（問題の発見、プロポーザル作成等のプログラムの提案、成果報告作成と事後評価）といったハードスキルの能力
2. 自立、相互協力、リーダーシップ、ネットワーキング、関係間調整といったソフトスキルの能力

3. ラーニングアウトカム

第一のラーニングアウトカムをふまえたうえで、KKP参加学生が身につけると期待される能力：

1. 農学分野と環境に関連する分野の視座から、村落の問題を発見し、分析する能力。
2. 農学分野と環境に関連する分野の視座から、問題を解決し、代替案を提示する能力。
3. 村落における複雑な社会生活において、倫理的に正しく専門分野の知識を適用する能力。

3. ラーニングアウトカム

第二のラーニングアウトカムをふまえたうえで、KKP参加学生が身につけると期待される能力：

1. 地域の最適潜在資源を発見し、開発する能力。
2. 地域の問題解決のためのプログラムを分野横断的かつ統合的に計画し、評価する能力。
3. 産・官・学間の協力とコミュニケーションを活性化させ、地域の問題解決に役立てる能力。
4. 社会生活の現実にあるニーズを満たすため、問題解決に努力し、関係者間の協力体制を構築する能力。

4. 効果

KKPの活動は、活動に関わるあらゆる主体にとって、有益となることが期待される。

- 学生
- 大学
- 地域社会
- 地方政府
- 地域産業界

5. 主体者の役割

1. 学生：
   - 地域活性化のファシリテーター
   - 多様な創意の橋渡し
2. IPB：
   - 創意の共有　*Sharing* inovasi
3. 地域社会：
   - 潜在力と問題群についての情報共有
   - KKPプログラムへの参画
4. 地方政府：
   - KKP実施のファシリテーション
   - KKP実施の認可と警護
   - KKPプログラムの資金助成
5. 産業界：
   - 事業・プログラム開発のうえでの協力
   - CSR（企業の社会的責任）遂行としての学生の教育

6. 実施体制

テーマ:

- ボゴール農大のKKPでは、毎年異なるテーマを設定。KKP実施地となる各県・市毎でもテーマを定め、さらに各プログラムでもテーマを決める。
- 各県・市におけるKKPプログラムは、その地方政府の開発計画と相乗効果が出るよう、それぞれの地域の潜在力、問題群、ニーズに合わせて編成される。
- 上記県・市レベルのプログラムの内容は、学生たちの専攻分野に合わせながら、KKP実施単位となる行政郡・行政村レベルで具体的に決められる。
- KKPプログラムのテーマ設定においては、各村落が持続的発展を図れる点に主眼があてられる。
- テーマ選定はボゴール農大や各地方政府によっておこなわれる。

6. 実施体制

参加者資格:

- 授業科目を最低105単位以上を修得し、かつ平均成績値（IPK；最高は5．0）が2．0以上の学部学生で、実習履修登録済であること。

指導体制:

- 各学科内での推薦に基づき、学部長がフィールド指導教員（DPL）を認定。フィールド指導教員がKKPの実施学生を指導する。

6. 実施体制

KKPの一連の範囲：

1. 事前準備
2. 事前講義
3. 参加学生の選定
4. セミナーⅠ
5. プログラム実施
6. 現地指導、監督、フィードバック
7. フィールド活動の評価
8. セミナーⅡ

6. 実施体制

実施パターン:

KKPは複数の学部や学科で実施したり、一学部や一学科のみで実施することもある。各学部／学科が分野に合わせて地域を選定。

6. 実施体制

場所:

- KKP実施場所は、以下の点を考慮して決定される:
  - 専門分野との関連性
  - 行政村のカテゴリー
  - 後発途上の行政村を優先（へき地、未発展など）
  - 乗用車やバイクでアクセスできること
  - 各行政郡内で互いに近接している行政村
  - 1つの郡内の4－6の行政村で実施
  - 地方政府により認可を受けたところ
- KKP実施場所は各学部／学科の意向に合わせて選定され、1郡内で5－7の行政村となる。

7. 単位認定

2013年度までの認定単位は3単位。現在、以下の点を考慮し、4単位認定となるよう提案・議論されている。

a) 事前授業に20－24時間かかるため、1．5単位分に相当する。

b) 村落フィールドでのKKPの実施期間は8週間（7－8時間／日）となり、2．5単位分に相当する。

8. 資金源

ボゴール農大のKKPの予算:

- 学生からの授業料
- 社会連携研究所のプロジェクト予算
- 寄附金

9. 実施主体

KKPの実施は、社会連携研究所によるコーディネーションのもと、KPP主催体によって行われる。アドホック（特定の目的をもつ）の主催体は、

1) 各学部のKKP主催体
2) 社会連携研究所内のコーディネーション主催体

から成る。

Terimakasih

ありがとうございました。

Hasrullah
Zainal
Nosakros Arya

STUDENT SERVICE PROGRAM OF HASANUDDIN UNIVERSITY

FROM LOCAL WISDOM TO INTERNATIONAL AWARENESS

History of Student Setrvice Program

As educated people, the students proved that they could be involved in the various aspects of development activities. In 1971, three universities, the University of Gajah Mada (UGM), University of Hasanuddin (UNHAS), and the University of Andalas (Unand), had initiatiated a project which was known as the "Student Service Program".

Student Service Program or KKN is ……

- Student Service Program is an activity of education, research, and community service.
- Students go to rural areal to learn in the society.
- They learn some local wisdoms.
- They also conduct a small research which links to their field of study.
- They could see and analyse the different between theory and reality.

Student Service Program or KKN is ……

The activities of Student service program are not only locally but also internationally. Students have opportunity to study local wisdom and to rise international awareness. The following are some programs (local and international) that have been conducted by student service unit of Hasanuddin University.

Prof. Idrus Paturusi, in the second periode of his administration, has established a history in community service. The student service program was conducted in many regions out of South Sulawesi, from Padang (West Sumatra), Sebatik Island (North Borneo), Miangas Island (North Sulawesi), and Ehime-Kochi-Kagawa University (Japan) . This could make students be open minded and think internationally. The Student service Program in Japan (SUIJI Program) was even the first internasional student service program in Hasanuddin University

Student Service Program cooperation with Military forces

Since 2012, Hasanuddin University cooporates with military forces to implement community service.

Collaboration between students and soldiers have organized some programs, such as eradication of malnutrition, cataract surgery, house renovation, simulated flood disaster management, and so on.

Student Service Program cooperation with Bosowa Foundation

UNHAS also developed a partnership with private companies. In 2012, the student service program cooperated with Bosowa Foundation.
The objectives was to empower communities in the region of PT Bosowa Energy District Bangkala, Jeneponto regency. Students helped the company to implement its CSR programs.

Padang, West Sumatra

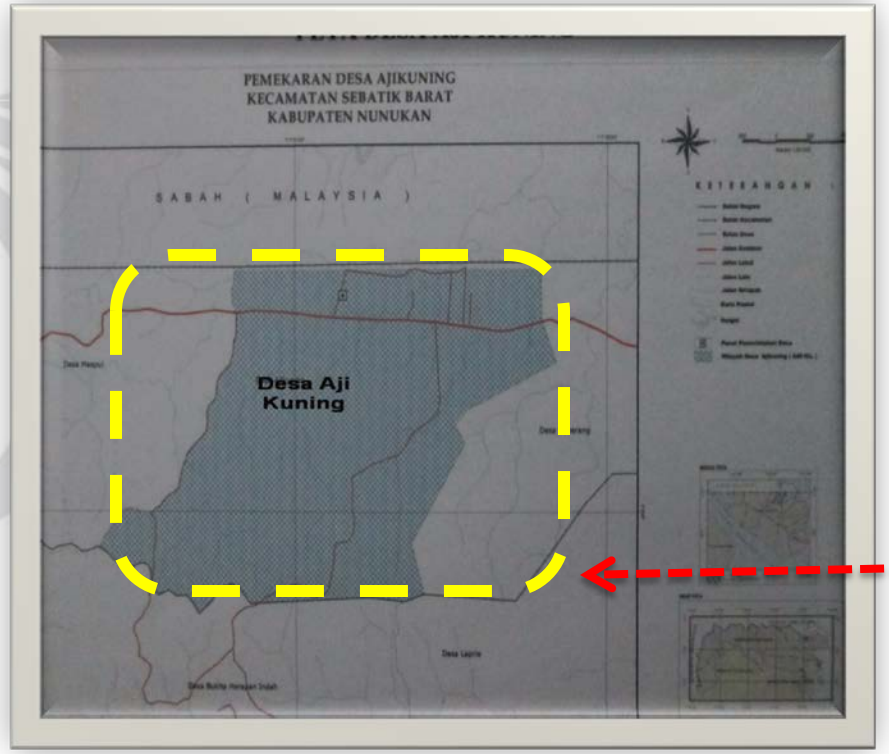
- The program cooperated with University of Andalas
- 50 students carried out community service in Tanah Datar and Pagaruyung.

Student Service Program in Miangas

One innovation program which came out from collaboration between Hasanuddin University and Military is sending students to the country border between Indonesia and the Philippines. The place was Miangas Island, South Sulawesi. This service program increased nationalism sense of the student since they could see the real condition in the border region.

Student Service Program in Sebatik Island

In addition to the Indonesian border with the Philippines, Hasanuddin University conducts also community service in Sebatik Island. Sebatik Island is an island directly adjacent to Malaysia. The island is divided into two parts, Nothern part is controlled by Malaysia and Southern part belongs to Indonesia.



Hasanuddin University has sent students to conduct student service program three times. The first batch was in July-August 2012 and assisted by the Indonesian Ministry of Fisheries and Marine Resources.

Student Service Program in Sebatik Island

The second batch was in November-December 2012 in cooperation with the National Narcotics Agency (BNN). The particioants were not olnly students but also recovery addict. They work together in empowering community. The third batch was in June-July, 2013. Hasanuddin University sent 50 students to the island. This program will be continued for the future.

International Student Service Program with SUIJI

The program involves 6 universities: Hasanuddin University, Gadjah Mada University and Agriculture Institute of Bogor (Indonesia), Ehime University, Kochi University and Kagawa University. Student expected to study and apply their knowledgment not only in rural area in Indonesia but also in international.

Planting Sago in Malangke

In South Sulawesi, some programms have been conducted in some places, for instance getting experince in mountain area (in Bantaeng Regency). The other place was spermonde islands. Another place was Malangke.

There are some benefits of this program;

1) Increasing the development of agriculture.
2) Strenghtening the network between Japan and Indonesia.
3) Learning more about agriculture for students in each delegation.
4) Building personal character of students.
5) Plunging to community development that can grow self motivation.
6) Expanding the networking between of 6 six university and also for students from the universities.
7) Intoducing culture from both side, japan and indonesia.

Agrotourism in Bantaeng

***The International student service Program of Japan** has inspired in developing intnernantional program to other countries.*

*In 2012 and 2013, it was carried out **the International Student Service Program of Malaysia.***

*It is also planned to conduct the program in **ASEAN.***

National Student Service Program

One big activity of student service program is National Student Service Program which will be held in October-November of 2013.

This program involves students from some universities in Indonesia.

They are coming from 68 universities in Indonesia, both public and private, plus the cadets of the Military Academy and the Indonesian Police Academy.

One of promotion tool of
National Student Service Program

TERIMA KASIH

Kuliah Kerja Nyata (KKN) Universitas Gadjah Mada Yogyakarta

Wahyu Supartono
Fak. Teknologi Pertanian
Universitas Gadjah Mada
Yogyakarta - Indonesia

Presented at SUIJI Meeting/Conference
Kochi University28-30 August 2013

Tri Dharma Perguruan Tinggi

Pengantar

- **19 Desember 1949** UGM didirikan oleh Ir. Sukarno → Universitas Perjuangan dan Universitas Kerakyatan karena banyak program membantu rakyat
- Kuliah Kerja Nyata (KKN) dimulai **tahun 1951** → pengiriman mahasiswa sebagai guru SMA di luar pulau Jawa → Pengerahan Tenaga Mahasiswa (PTM)
- Tahun 1962 program ini dihentikan karena kesulitan dana

Pengantar

- **Tahun 1971** Prof. Koesnadi Hardjasoemantri (alm) menghidupkan KKN dan mewajibkan KKN sebagai program bagi semua mahasiswa UGM sampai saat ini
- Tahun 1994 KKN Alternatif Pemantau Pemilu (KKN APP)
- Tahun 1998 KKN Tematik → didasarkan pada tema tertentu sesuai kebutuhan masyarakat

Pengantar

- **Tahun 2006** semua program KKN menggunakan KKN Pembelajaran Pemberdayaan Masyarakat **(KKN-PPM)**
- Perubahan paradigma dalam KKN: **pembangunan** (*development*) menjadi **pemberdayaan** (*empowerment*).
- Tujuan → menghasilkan pemimpin sejati, lulusan UGM yang mempunyai empati dan peduli terhadap permasalahan masyarakat.

GUI-C Connection

Prinsip-Prinsip KKN-PPM

- Keterpaduan aspek Tri Dharma Perguruan Tinggi
- Empati-Partisipatif
- Interdisipliner
- Komprehensif - komplementatif dan berdimensi luas
- Realistis
- *Environmental Development*

Pelaksanaan KKN-PPM

- ***Co-creation*** (gagasan bersama)
- ***Co-financing/co-funding*** (dana bersama)
- ***Flexibility*** (keluwesan)
- ***Sustainability*** (berkesinambungan)
- ***Research based community*** (berbasis riset)

Tujuan KKN-PPM

- Meningkatkan kepedulian terhadap masyarakat
- Melaksanakan terapan IPTEKS secara teamwork dan interdisipliner
- Menanamkan nilai kepribadian:
  Nasionalisme dan jiwa Pancasila
  Keuletan, etos kerja dan tanggung jawab
  Kemandirian, kepemimpinan dan kewirausahaan
- Meningkatkan daya saing nasional
- Menanamkan jiwa peneliti:
  Eksploratif dan analisis
  Mendorong *learning community* dan *learning society*.

Kegiatan dan Waktu

- Kegiatan KKN-PPM dibagi menjadi:

  a. Kegiatan Pokok dan Pokok Non-Tema

  b. Kegiatan Bantu

- Alokasi waktu **288 jam → 70%** Kegiatan Pokok dan Pokok non-tema dan **30%** Kegiatan Bantu

Pengembangan KKN-PPM

- Peningkatan koordinasi pemerintah, industri, penyandang dana dan universitas untuk pemberdayaan masyarakat
- KKN-PPM sebagai program internasional
- KKN-PPM menjadi salah satu kegiatan membantu korban bencana alam di Indonesia
- KKN-PPM membantu mengembangankan daerah tertinggal, terluar dan terisolir

Functions of Student in Community Development

- The students as **agent of change** or **agent of acceleration** in society
- The students are normally **multi-talent persons** can serve as reference
- The students can play as an **aspirator,** an **“engine”,** and **problem solver** for the society although they have still some weaknesses

Terima kasih atas perhatian anda
Arigato kosaimasta

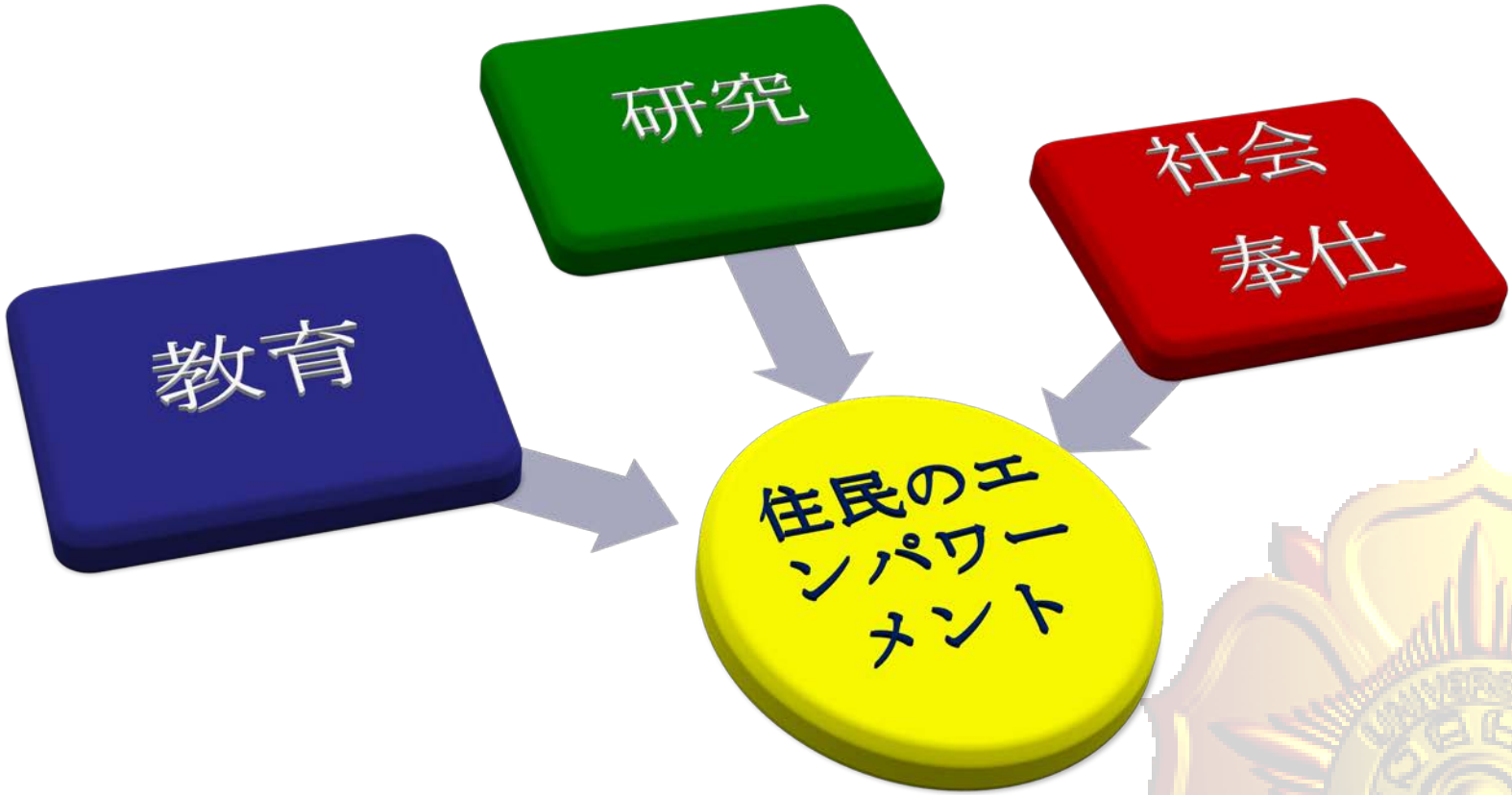
Thank you for your attention

ガジャマダ大学のKKN
(学生農村実習)

ワフユ・スパルトノ
インドネシア・ジョグジャカルタ
ガジャマダ大学農工学部

SUIJIセミナー
2013年8月28-30日、高知大学

高等教育機関の3つの柱



はじめに

- **1949年12月、ガジャマダ大学(UGM)がスカルノにより設立される** →庶民を支援する様々なプログラムを実施し、独立闘争の大学、庶民の大学とよばれる。
- 1951年、KKNを開始 → ジャワ島外の高校に教員として学生を派遣 → 学生派遣プログラム
- 1962年、資金難によりプログラムが中止となる。

はじめに

- **1971年、故クスナディ・ハルジョスマントリ教授がKKNを再開。**

  現在に至るまで、UGM全学生の必修プログラムとなる。

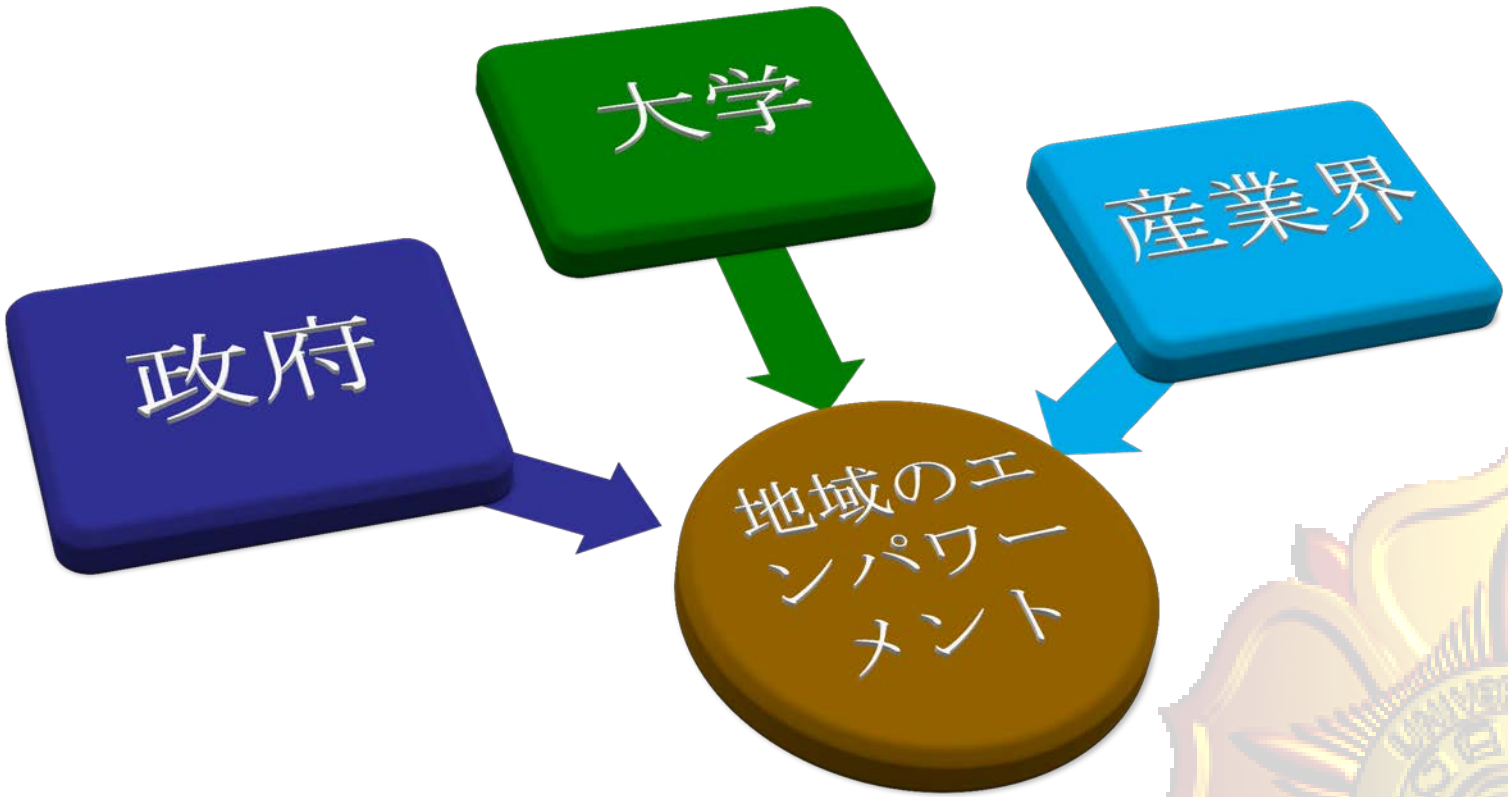
- 1994年、総選挙監視KKNが実施される。

- 1998年、テーマ別KKNを開始 → 住民のニーズにより、個別テーマを設定して実施。

はじめに

- **2006年、KKNプログラムはすべて、住民エンパワーメントを学ぶKKN(KKN-PPM)となる**
- KKNにおけるパラダイム転換:「開発」から「エンパワーメント」へ.
- 目的 → 住民が抱える問題に対し、心を寄せ、真摯な姿勢をもったUGM卒業生、真のリーダーを養成する。.

産官学の連携



KKN-PPMの原則

- 高等教育機関の3つの柱との統合
- 人々との共感･参加型
- 学際的
- 包括的、補完的、広領域
- 現実的、実践的
- 環境保全型開発

KKN-PPMの実施

- ***Co-creation*** (共に創る)
- ***Co-financing/co-funding*** (資金面での協働)
- ***Flexibility*** (柔軟)
- ***Sustainability*** (持続可能)
- ***Research based community*** (研究を基盤とした活動)

KKN-PPMの目的

- 住民に対する関心・共感を高める
- 学際的なチームワークにより、学問・科学の社会への適用をはかる
- 人格形成をはかる: 愛国心、忍耐力、勤勉、責任感、自立、リーダーシップ、企業家精神
- 国の競争力を高める
- 研究者精神を育成する:
  探究心、分析力、コミュニティに学ぶ

活動と期間

- KKN-PPMは以下の2つから構成
  a. 基本活動
  b. 補助活動

- 288時間→ 70% は基本活動、30% は補助活動にあてる

KKN-PPMの展開

- 住民のエンパワーメントのため、政府・産業界・資金提供者・大学間の連携を高める
- 国際プログラムとしてのKKN-PPM
- インドネシアにおける被災者支援活動としてのKKN-PPM
- 開発が遅れた地域、孤立地域の地域開発を補助する

地域づくりにおける学生の役割

- 社会の変化を促す
- 多彩な能力を発揮する。
- 弱点はあったとしても、社会に新たな視点を提供し、エンジンとなり、社会の問題解決をはかる。

Terima kasih atas perhatian anda
Arigato gozaimasita

Thank you for your attention
ご清聴、ありがとうございました

SUIJIセミナー2013　高知大会
セッション2　事例報告
学びを促す場としての地域：日本の事例から

日本のサービスラーニング
高知大学の経験
～社会協働教育の実践～

2013年8月29日

塩崎　俊彦　（総合科学系・地域協働教育学部門・教授）
（総合教育センター・大学教育創造部門・部門長）

日本におけるサービスラーニングの考え方

◆中央教育審議会答申「新たな未来を築くための大学教育の質的転換に向けて～生涯学び続け、主体的に考える力を育成する大学へ～」（2012/8/28）

教育活動の一環として、一定の期間、**地域のニーズ等を踏まえた社会奉仕活動を体験すること**によって、それまで知識として学んできたことを実際のサービス体験に活かし、また**実際のサービス体験から自分の学問的取組や進路について新たな視野を得る**教育プログラム。

サービス・ラーニングの導入は、①専門教育を通して獲得した専門的な知識・技能の現実社会で実際に活用できる知識・技能への変化、②将来の職業について考える機会の付与、③自らの社会的役割を意識することによる、市民として必要な資質・能力の向上、などの効果が期待できる。

詳細は：http://www.human.tsukuba.ac.jp/gakugun/k-pro/aboutSL/aboutSL.html

高知大学で実践しているサービスラーニング
～社会協働教育～

①地域や企業、組織が有する「人を育てる力」を活かした教育

②キャンパスは地域、テキストは人

③自律した人間として人生を生き抜く力の獲得を目指す教育スタイル

地域や企業等の教育力を活かした教育

- 「新たな社会のニーズ」に応える人材の育成

- 学生のニーズ－自律した人間として人生を生き抜く力の獲得－を満たす教育

キャンパスは地域、テキストは人

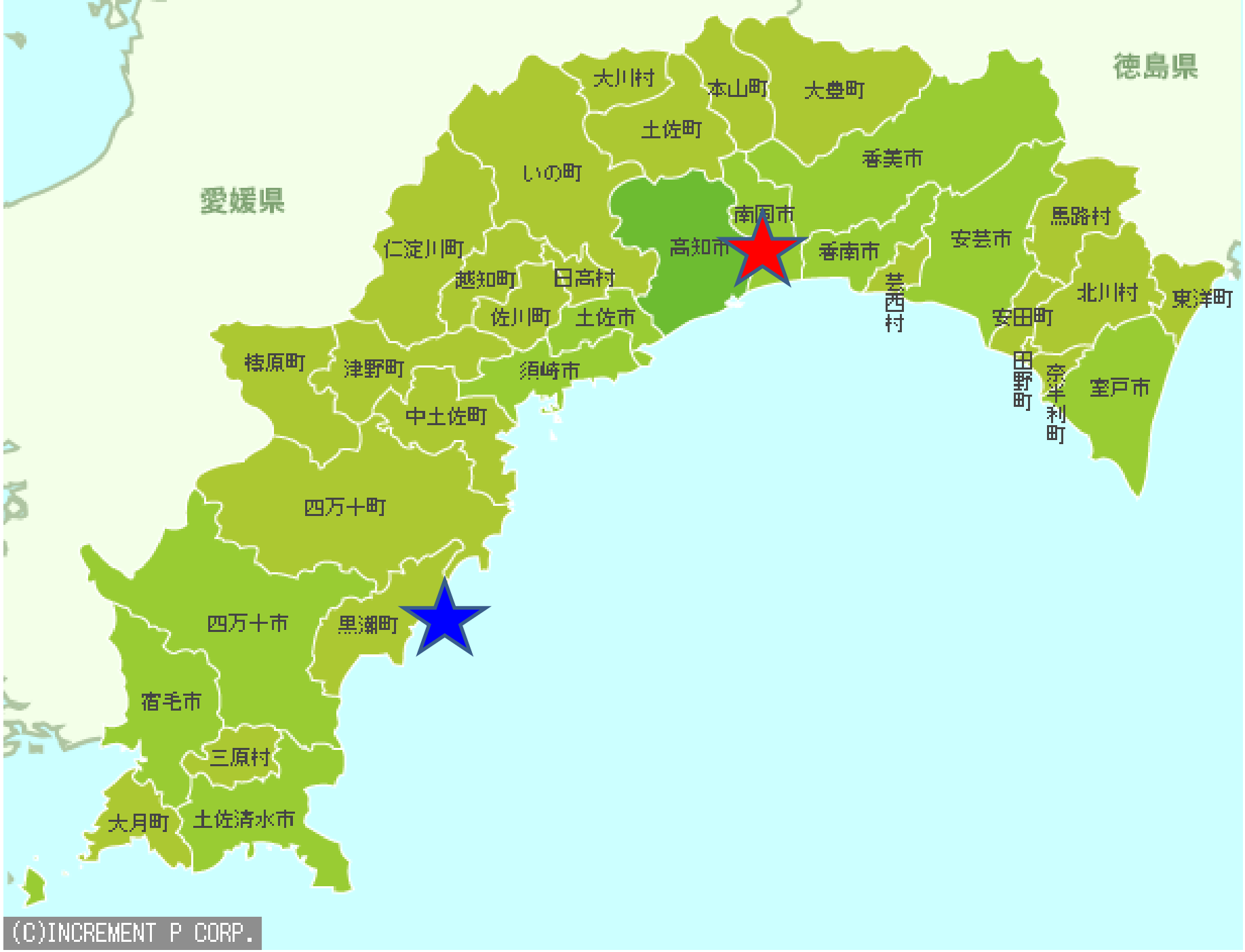
- 地域社会と大学・学生が「Ｗｉｎ－Ｗｉｎの関係」になれる授業とカリキュラム
- 地域の持続的未来にむけた手助け
- 学生が地域に関わることによって自らの能力を伸長させていく教育プログラム

地域協働入門Ⅲ

９月５日；事前学習

９月６日～８日；スタディー・ツアー
黒潮一番館・砂浜美術館
であいの里みながわ

９月９日；事後学習


徳島県
愛媛県
大川村
本山町
大豊町
土佐町
いの町
香美市
南国市
高知市
馬路村
安芸市
香南市
仁淀川町
越知町
日高村
芸西村
北川村
東洋町
佐川町
土佐市
安田町
田野町
奈半利町
室戸市
檮原町
津野町
須崎市
中土佐町
四万十町
四万十市
黒潮町
宿毛市
三原村
大月町
土佐清水市
(C)INCREMENT P CORP.

事前学習

事前学習でのイメージ

- 自然が豊か／観光資源が豊か
- 人口が少ない
- 高齢化が進んでいる
- 若い人が少ない／活気がない

⇒ 活性化に向けた提案ができるのでは？


防風林の保全作業


地域の人と食事の用意

地域活性化の取組を聴く


住民へのインタビュー


ビーチ・コーミング


川エビ獲り

事後学習での振り返り

・おじいちゃん、おばあちゃんが元気！

・地域のことを真剣に考えている！

・この風景やコミュニティは変わらないでほしい！

⇒「地域が幸せになる」って、本当はどういうことだろう？

１年生のサービスラーニングでの現場目標

人と向き合える（他者や地域に関心を向ける）

人の話を聴ける（目を見て聴く、質問できる）

自分の行動を管理できる（遅刻をしない、片付ける）

人としてのマナーを身に着ける（あいさつする、返事をする、お礼を言う、謝ることができる）

多様な価値観に触れる
共感する
自己の価値観を理解する

２年生のサービスラーニングでの現場目標

主体的に各種行事にかかわることができる

対象者・関係者・自分自身が置かれている状況を考える

イベントなどを企画し実践できる

実践結果を検証し、発表できる

実習先の活動を伝えることができる

地域を理解する
人のつながりをつくる
グループでの協力関係を築く
自己の能力を広げる

社会協働教育　　～到達点と課題～

1）到達点　社会協働教育を進めるための協働ネットワークの構築

①地域とのネットワーク
これまでに社会協働教育を実施したフィールド（コミュニティ及び企業等組織を含む）は、40か所近くになる。そのうち、現在も継続的に実働しているフィールドは20か所に及ぶ。また、フィールド開発を通じてキーパーソンとのつながりも構築してきた。これらのキーパーソンは50名を上回り、「社会人師匠リスト」に掲載して社会協働教育関係の情報を大学から配信するとともに、「社会人師匠」からの地域情報を学生に発信して、つながりを保っている。地域とのつながりを担保する機関として総合教育センターにリエゾンオフィスを設置し機能強化を図った。

②学内ネットワーク
高知大学国際・地域連携センター地域再生部門との連携、農学部及び教育学部の一部との連携が生まれている。特に2学部との連携は、地域フィールドを共有して互いの特色を生かしたプロジェクト等の実施を行うに至っている。

2）課題　社会協働教育を進めるための協働ネットワークの構築

①社会協働教育を担う教員の拡充と安定確保の必要性
社会協働教育を大学教育－特に学士課程教育－において広めるためには、今以上に担い手となる教員を拡充するとともに安定的に確保する必要がある。現在、地域協働教育学部門に所属する14名が、外部の協力教員の助けを得て社会協働教育を全学に提供している。しかし、この方式には限界がある。現在、コア教員として機能している教員の3分の2は、各学部の専任担当の責務を果たした上で、ボランティアとして社会協働教育を担っている。こうした状況は持続可能ではない。社会協働教育に専念できる拠点を構築する必要がある。

②4年一貫のカリキュラムを権限と責任を持って実施する必要性
共通教育は、各学部が集まってカリキュラムを編成し運営する共通教育実施機構によって担われている。したがって、4年一貫のカリキュラムを編成して入学から卒業まで教育に責任を持つ組織ではない。総合教育センターも然りである。入学から卒業までの全過程に責任を　持ってカリキュラムを編成し教育を行う、権限を持った組織が必要である。

SIX-UNIVERSITY INITIATIVE JAPAN INDONESIA

SUIJI Service Learning Program

From our Experience in Indonesia and Japan

Nishina Hiroshige
Dean
Faculty of Agriculture,
Ehime University

愛媛大学 EHIME UNIVERSITY

Purpose

Training dedicated international ‘servant leaders’ who will contribute to the sustainability for our future society by supporting primary industry at the regional level.

Under the SUIJI Consortium

- Students in the undergraduate and graduate courses will live 1 week to 3 months in a local community and carry out a themed service learning (**SLP**).
- For the masters post-graduate students, joint degree programs(**JDP**) are provided in the field of agriculture.

SUIJI Consortium will establish a new paradigm of academic activities in the field of Tropical Agriculture

2010: **SUIJI Consortium** was established by Kochi U. Kagawa U. Ehime U. and IPB, UNHAS, UGM by the leadership of Ehime U.

2011: 1st SUIJI seminar (Ehime U.)

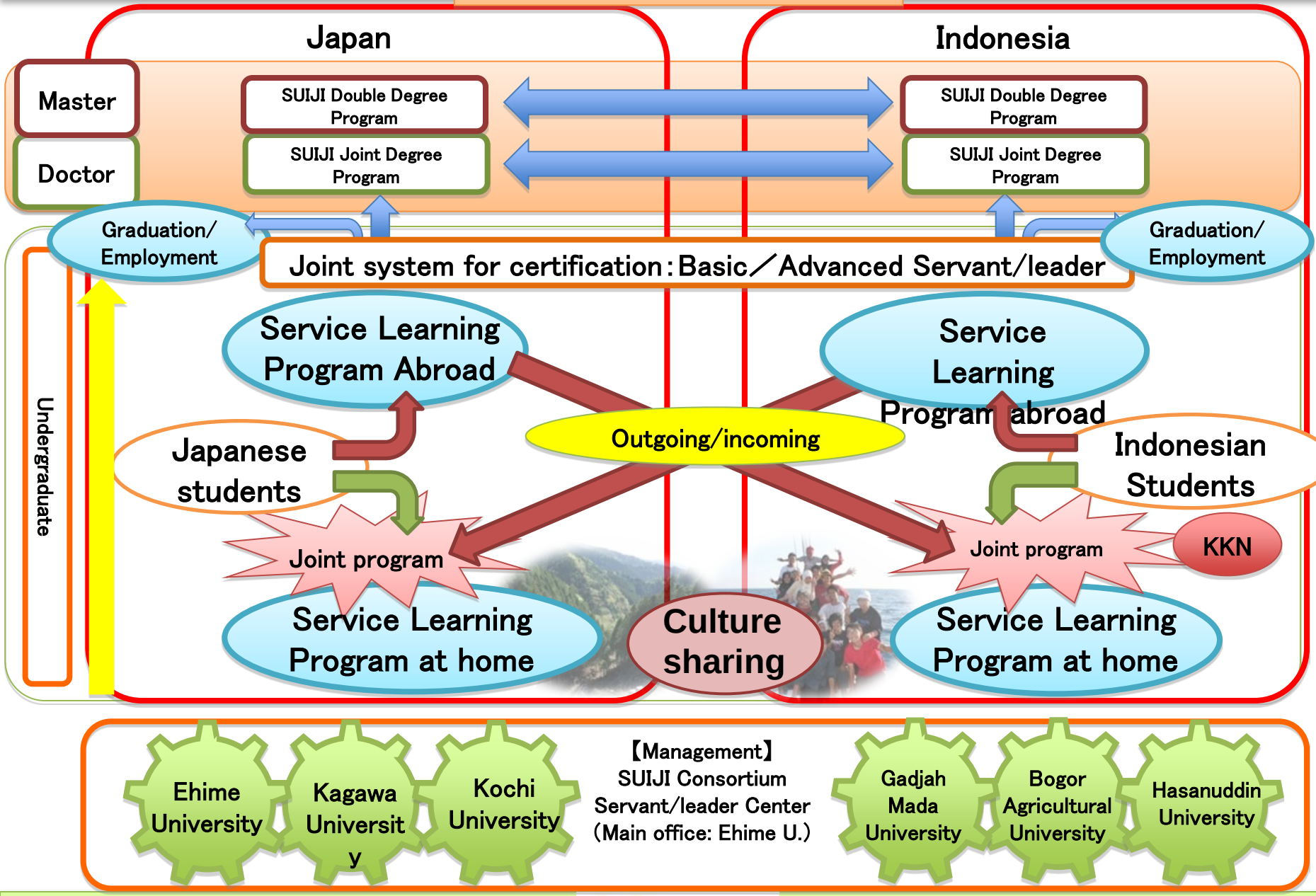
MOU of **Joint Degree Program** was concluded.

SUIJI Consortium 'Ehime Agenda' was signed

2012: 2nd SUIJI seminar (IPB). SUIJI Service Learning was selected as a **MEXT Re-Inventing Japan Project.**

2013: 3rd SUIJI seminar (Kochi). **SUIJI Service Learning Program (SUIJI-SLP)** and **Joint Degree Program(SUIJI-JDP)** start.

Program Outline



Ehime University

Kagawa University

Kochi University

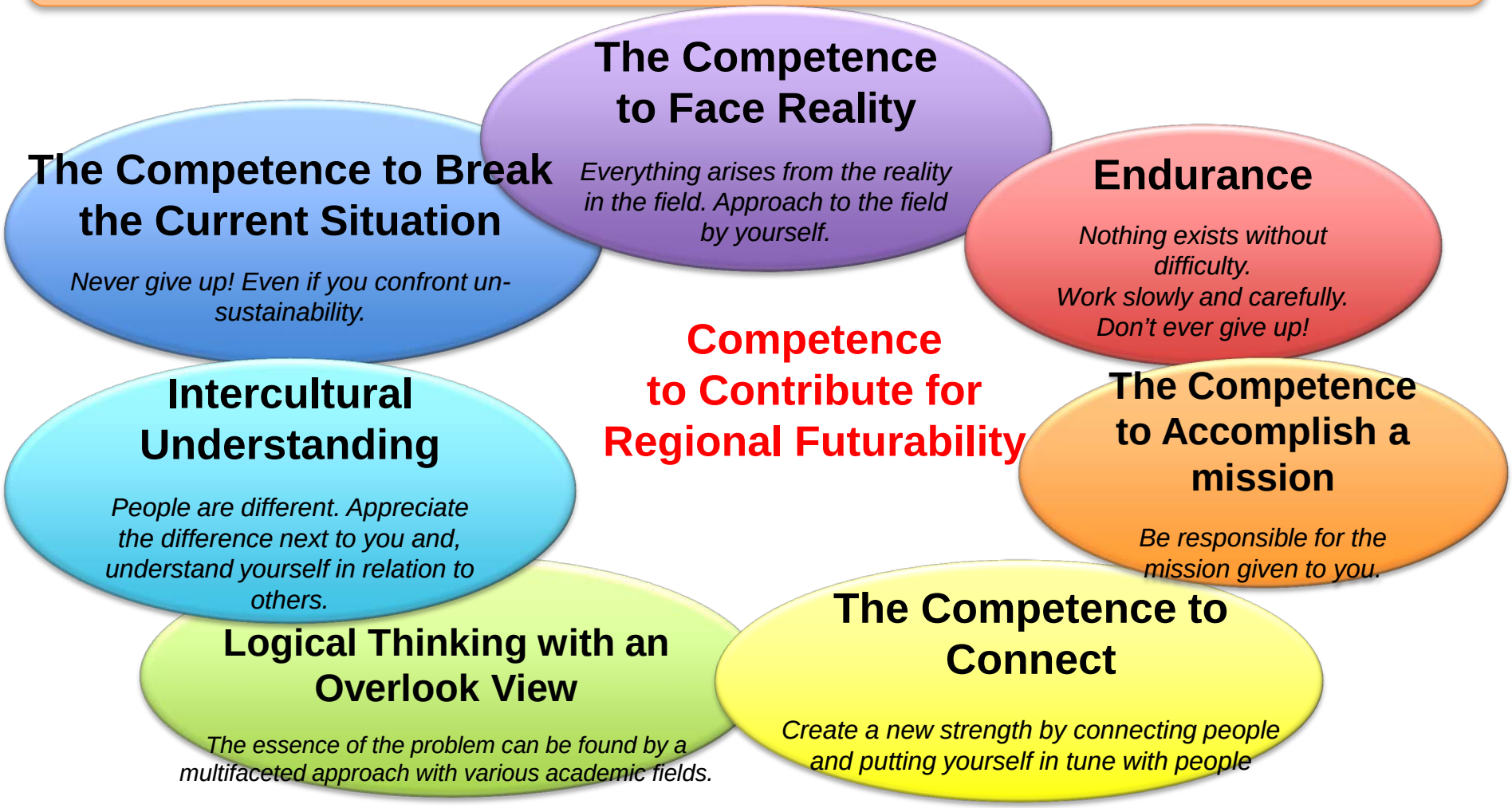
【Management】
SUIJI Consortium
Servant/leader Center
(Main office: Ehime U.)

Gadjah Mada University

Bogor Agricultural University

Hasanuddin University

Seven Competences of SUIJI Servant Leadership



Foster international '**servant leaders**' who will contribute to the sustainability of future society by supporting primary industry at the regional level.

Curriculum

Recommended Lectures (6 credits) ie. Survival Indonesia

1st Grade

Introduction of Regional Futurability（1 credit）

Culture Sharing (1 credit)

Basic Domestic SVL (4 credits)

Certificate of Basic Servant Leader

2nd Grade

Basic Learning Abroad SVL (4 credits)

3rd Grade

Advanced Domestic SVL (4 credits)

Certificate of Advanced Servant Leader

4th Grade

Advanced Learning Abroad SVL (4 credits)

SUIJI-SLP 2013

Domestic Service Learning

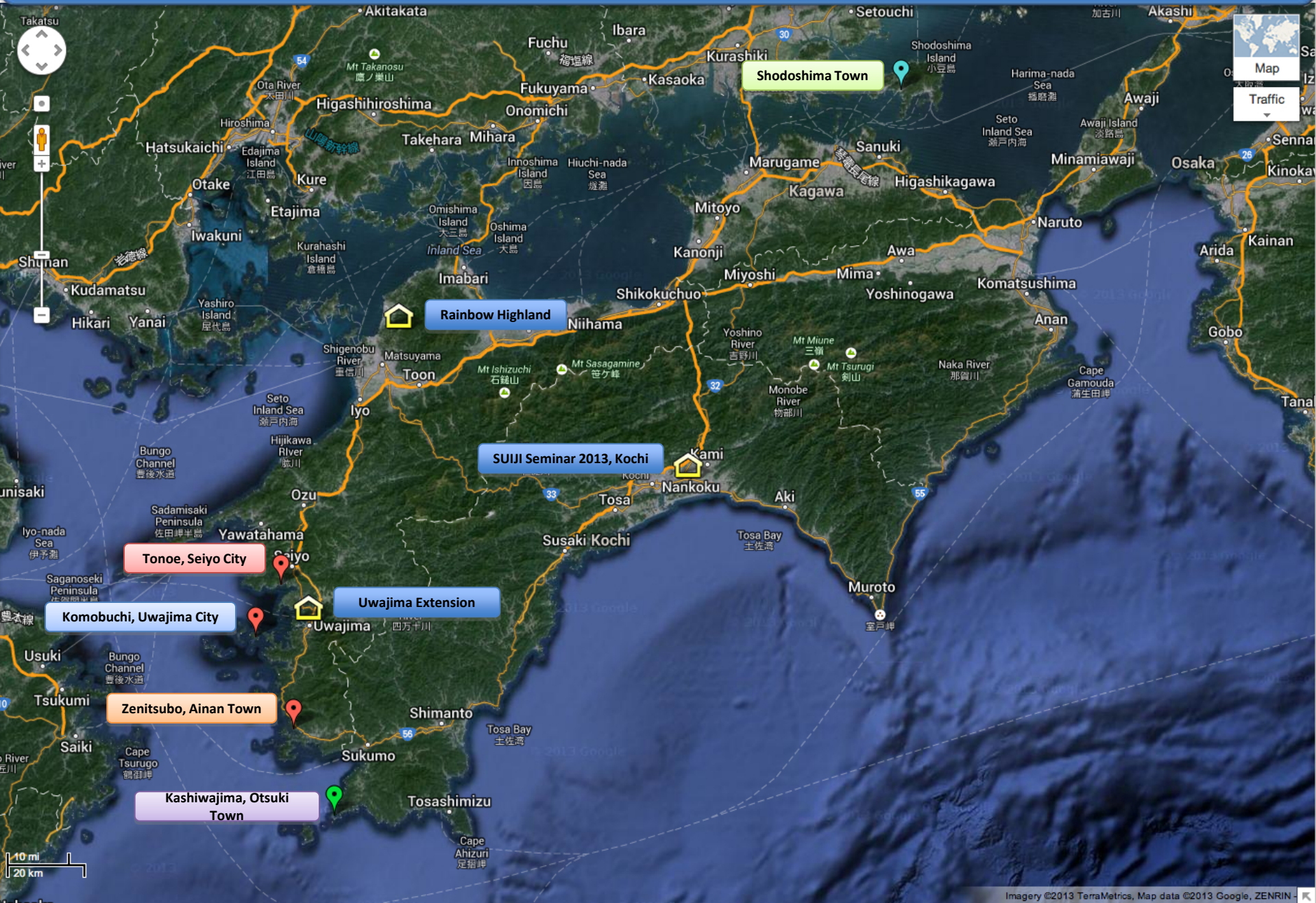
- ✓From 2013/8/19 to 9/6
- ✓SLP will take place at the 5 sites within Shikoku Island
  - Zenitsubo, Ehime
  - Komobuchi, Ehime
  - Tonoe, Ehime
  - Shodoshima, Kagawa
  - Kashiwajima, Kochi
- ✓73(33 Indonesian) students are participating

	EhimeU	KagawaU	KochiU	UGM	IPB	UNHAS	Total
Male	9	7	4	6	8	5	39
Female	12	4	4	3	6	5	34
Total	21	11	8	9	14	10	73

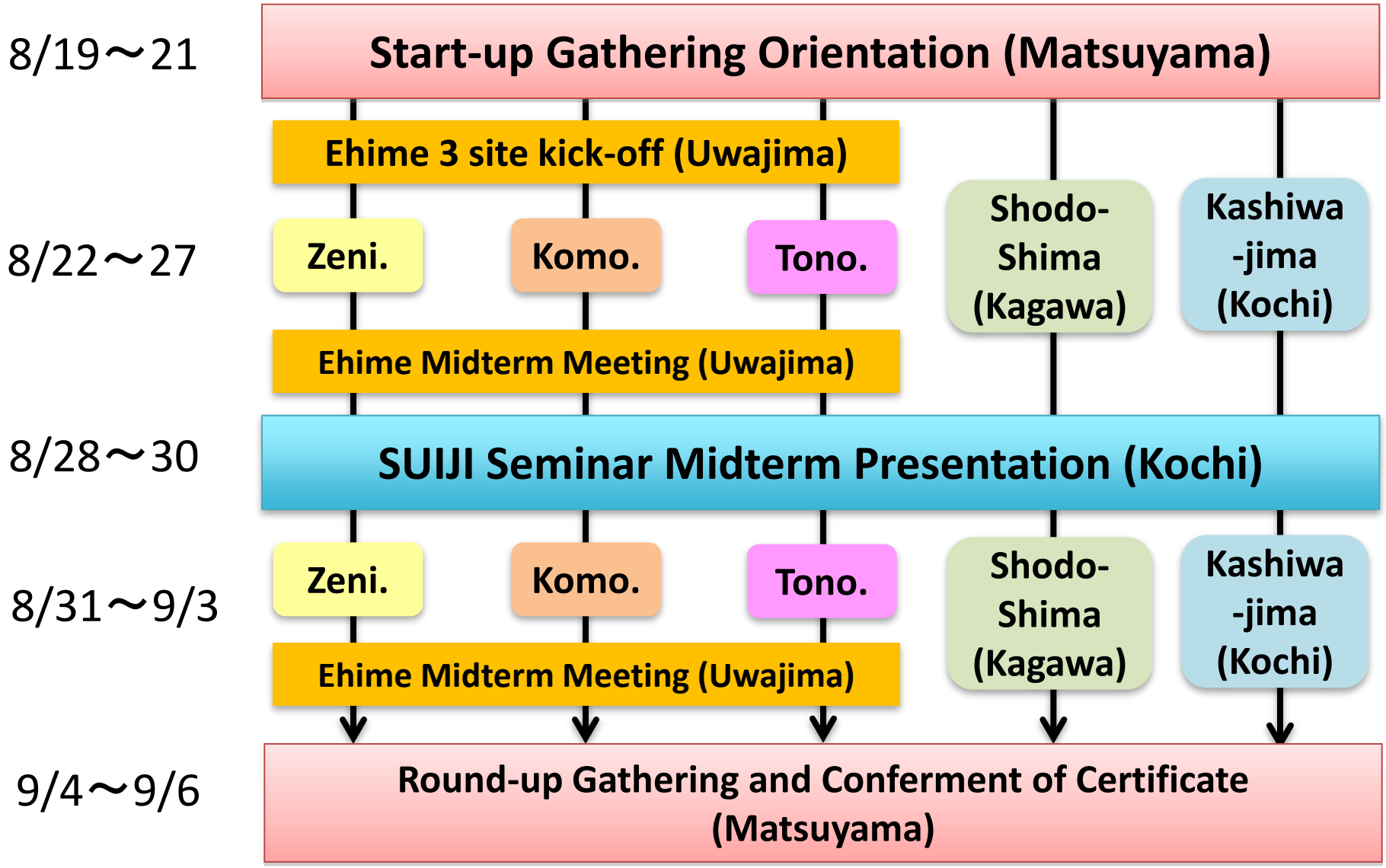
Aboard Service Learning

- ✓ Scheduled in March 2014

SUIJI Service-learning Sites 2013, Japan



SUIJI SLP 2013 Schedule in Detail



We clear a field.

We struggled to communicate.

It was really hard, but I was surprised that I had a good time …

Only old people live in a village.

What can we do to help?

facebook 友達、スポット等を検索 島上 宗子

島上 宗子として、コメント、「いいね！」、投稿をしています — SUIJI Service-Learning Programに切り替える

管理者用パネル

Facebookページを編集 ファン数を増やす ヘルプ 表示する 8

SUIJI Service-Learning Program

いいね！ 92人・話題にしている人8人

ページ情報を更新 2 「いいね！」しています

大学

Aim of the project is to train international "servant leaders" who, by supporting primary industry at the regional level, will contribute to sustainability for future society.

92

基本データ 写真 いいね！

Researcher Forum:

Japan- Indonesia collaboration research for development

- Session 1 (Crystal Hall)
  Chairman: Toshiro Masumoto
  - Shushi Sato (Associate Professor, Faculty of Agriculture, Kochi University)
    Rural engineering and my current research
  - Indrabayu (Lecture, Department of Electrical Engineering, Hasanuddin University)
    A Recommendation for Tropical Daily Rainfall Prediction Based on Meteorological Data Series in Indonesia
  - Hiroki Oue (Professor, Department of Bioresources, Faculty of Agriculture, Ehime University)
    Agricultural Water Use in South Sulawesi during the Dry Season

- Session 2 (Garden Hall)
  Chairman: Hiroyuki Ukeda
  - Nursigit Bintoro (Vice Dean, Faculty of Agricultural Technology, Gadjah Mada University)
    Some Problems in Developing Mechanical grain Dryer and Research Improvement
  - Hirotoshi Tamura (Professor, Graduate School of Agriculture, Kagawa University)
    A trial for Innovative Development of Food Science and Technology through Agricultural Sciences
  - Edy Hartulistiyoso (Directorate of Collaboration and International Programs, Bogor Agricultural University)
    Microwave Application of Food and Agricultural Industry

3rd SUIJI seminar in Kochi

(Six University Initiative Japan Indonesia)

Rural Engineering & My Current Research

Laboratory of Water Use and Environmental Engineering

Associate Professor

Shushi SATO

2013.08.29 Southern City Hotel

Urban Engineering

- Civil Engineering
- Architecture

Tower

Highway

Building

Bridge

Waste water treatment

Rural Engineering

- Storage
- Intake
- Transportation

Water

Head works

Dam

Canal

Division works

Pond

Facilities for water use

Main materials for the structure

- Rock & Sand
- Soil
- Concrete

- Merit
  - Low permeability (water)
  - Low cost (economical)
  - High strength (compressive, tensile..)
  - High durability
  - Easy to operate (shape, size, ..)
- Demerit
  - Easy to generate the cracks
  - Lifespan is limited…

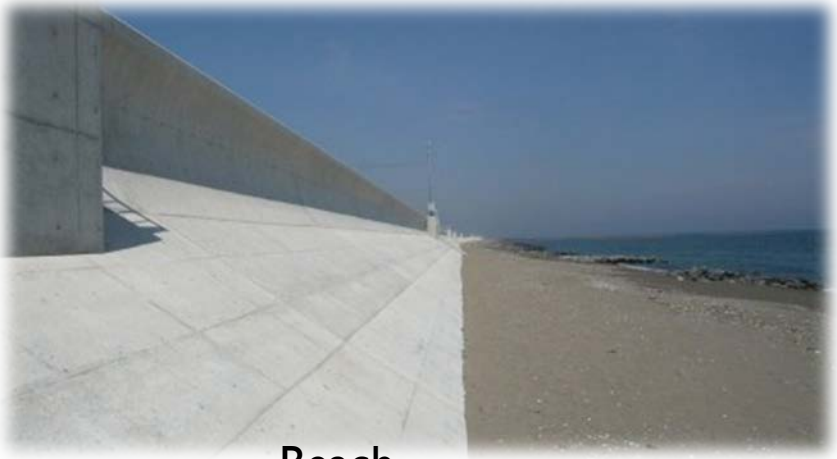
  and …

Improvement for human life

- Safety
- Security
- Efficiency
- Convenience

- Destroyed the relationship with the "NATURE"

River



Beach

Canal

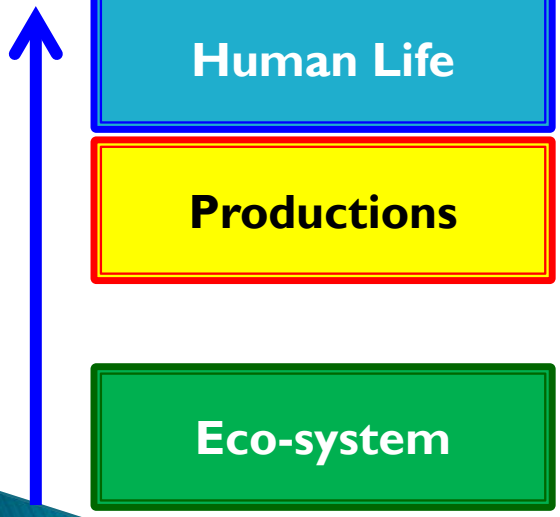
Coast

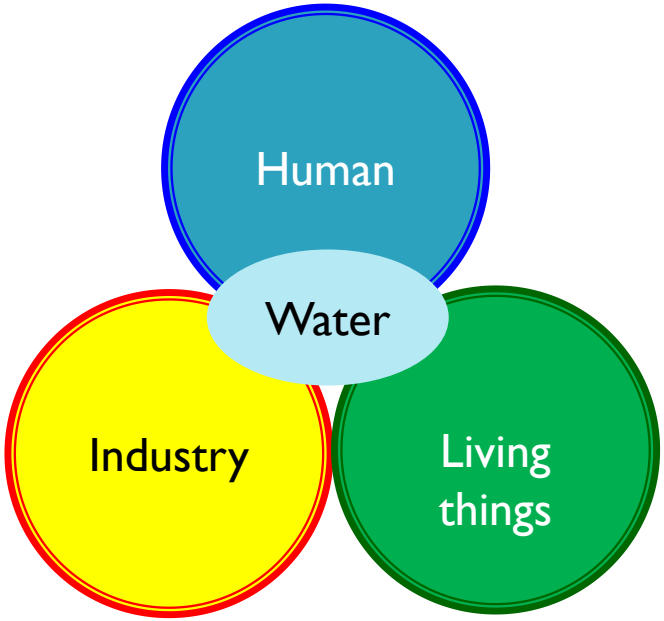
Harmony with nature

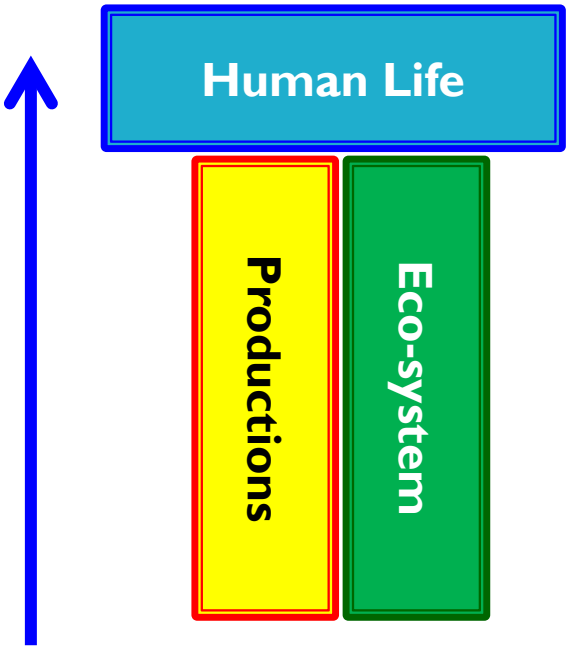
- Safety
- Security
- Efficiency
- Convenience

- People would mention to the Quality of Life.

Priority of past value sense on Environment







Proposition (ideal):

Modern life-style at Rural area?

By the way…

Lifespan of concrete

Q: Guess the supplement periods of concrete structure

- 10 years
- 50 years
- 100 years
- Forever

Depend on the type of structure

Dam: 100 years, Head works: 50 years, Canal: 40 years, etc

As the construction material,

Depend on the supplied environmental condition

Modern cement was developed in 1824, by J. Aspdin

Aging (decaying) of structures

Research theme 1:
Durability & Deterioration of cement & concrete materials

Research theme 2:
Repair & Reinforcement technique for water use facilities

Fixed gate (60years) was collapsed by flood

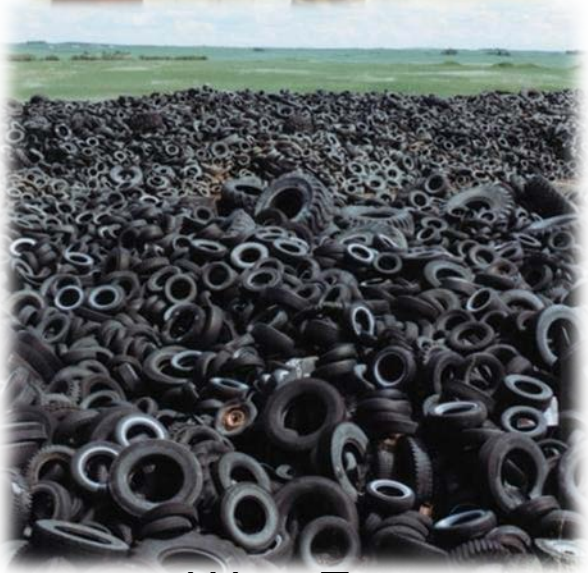
Renewal of Infra-structures

- Re-construct huge amounts of structures!

Research theme 3:
Develop the new functional material for structure

- Various Industrial wastes
- Give new function to concrete

Granite muck



Waste Tire

Water Environment

- Phosphorous is the inhibit factor
- Countermeasure against Non-point sources

Red tide

Research theme 4:
Develop the new functional material for the preservation of water environment

Waterbloom

Soaking type

Floating type

Phosphorous Adsorption Concrete

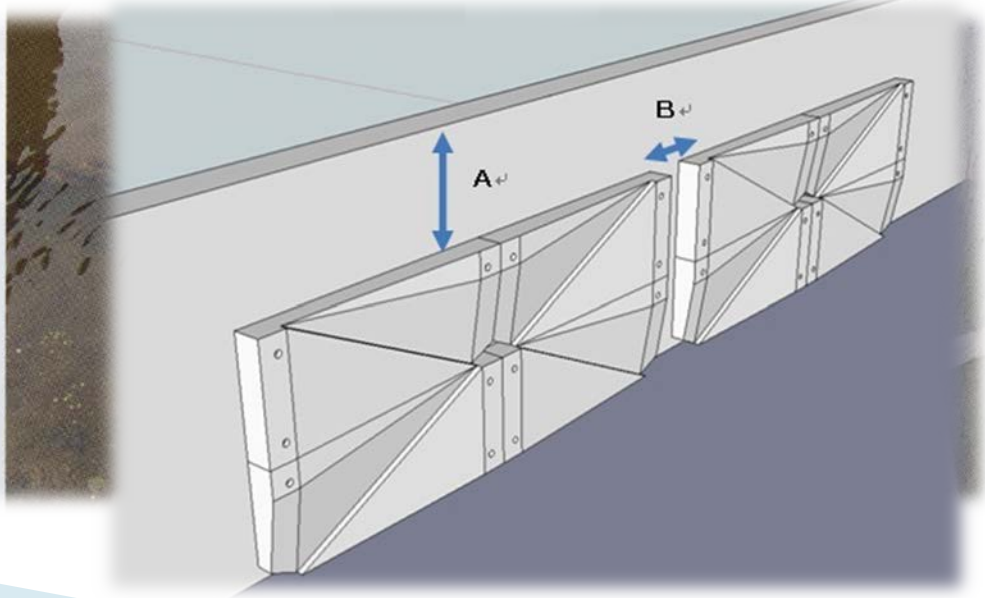
Paddy field and canal -Flogs

- Concrete canal is the death trap for flogs!

Research theme 5:
Develop the new functional material for structure

- Species
- Size
- Angle
- Width
- Void ratio

and so on



Paddy field and canal -others

M. Anguillicaudatus (weather loach)

some of them are in danger of becoming extinct.

Research theme 6:
Problems on endangered species

Cyrenidae (fresh water clam)

indigenous species are decreased, and replaced to other species

Research theme 7:
Problems on exotic species

Have the roll for Water purification (to organic matter)
Can adsorb the heavy metals in water (lead, arsenic, etc)

Apply to Bio-remediation technique?

Marine Environment

ISOYAKE

Seaweed bed

Red sea turtle

Lost of breeding beach in Kochi

Vision for ideal rural area

- Concrete is not the villain.
- Depend on the person who use this material.
- Con- crete → Con- **create**

Thank you for your kindly attention!

A Recommendation for Tropical Daily Rainfall Prediction Based on Meteorological Data Series in Indonesia

Indrabayu[1] and D.A. Suriamiharja [2]
[1] Informatics Department-Hasanuddin University, Makassar, Indonesia
[2] Physics Department-Hasanuddin University, Makassar, Indonesia

***Abstract*—The use of artificial intelligence (AI) and statistical methods for prediction based on data series have been widely used recently. In this paper both methods are implemented and compared in term of forecasting accuracy. The accuracy are measured in root mean square error (RMSE) and percentage of successful rainfall clustered to actual data. A hybrid AI i.e. Support Vector Machine and Fuzzy are combined for qualitative rainfall forecasting. A recommendation for sampling time and parameter used are also reviewed for better future forecast.**

***Index Terms*—Data Series, Rainfall, Precipitaion, Forcasting**

I. INTRODUCTION

Since time immemorial, experts have linked the rain events with other meteorological parameters. Factors such as temperature, humidity, air pressure, wind speed and solar radiation have been connected as precursor of rainfall rate. Many research has conducted to elucidate relationships among those factors. For developing country like Indonesia, rainfall forecasting using empirical data series are still used nowadays.

The development in methods in statistical analysis and massive used of artificial intelligence (AI) for expert system has significantly contributed in continuity of forecasting based on empirical data series. Many research worldwide have shown that AI and statistic do have extended capability in forecasting long and even short term of rainfall rate [1, 2, 3]. Several research also revealed the significance of other meteorological and climate factors in forecasting precipitation [4, 5, and 6]

In this paper, the authors focusing in improving existing methods used in Indonesia by Meteorology and Climatology and Geophysics Berau (BMKG) under expert system software so called HyBMG [7]. There are four algorithm used in HybMG i.e. ANFIS, Wavelet, TISEAN and Auto-Regressive Integrated Moving Average (ARIMA). The percentage accuracy for each methods is considerably still low. ARIMA shows best performance with percentage 79%.

The areas development are on the algorithms used in forecasting and also in viewing the impact of other meteorology factors recorded by weather instruments for decades. In this research, predictions based on qualitative approach are also introduced. Ten years of daily meteorological data from 2001-2010 are collected from BMKG Indonesia. Sub-Region A - Makassar City is chosen as research focus based on its strategic location i.e. center of Indonesia and close to equator.

This paper comprises of 5 parts i.e. Introduction; a new qualitative approach for precipitation forecasting; extensive comparison of powerful algorithms used for prediction based on data series; recommendation of sampling time and parameter used in forecasting; and conclusions..

II. SVM-FUZZY SCHEME

A. Proposed System

The proposed system combines the SVM and Fuzzy methods to achieve high accuracy of the rainfall prediction. Correlation for each parameter to rainfall are calculated. From five parameters recorded only three have significant correlation value. The input parameters chosen are humidity (*H*), wind velocity (*W*), temperature (*T*), and rainfall (*R*). The concept of the SVM-Fuzzy and its flowchart are shown in Fig.1. and Fig.2, respectively.

In SVM, eight years data (2001-2008) prepared as training data aiming on 2009 observation data. Re-training conducted over 2001-2009 periods for predicting the humidity, wind and temperature in 2010. The input data are used in kernel Radial Basis Function (RBF) to determine the support vectors. The position of support vectors is needed to figure out the weight vector (*w*) and bias (*b*) as prediction parameters.

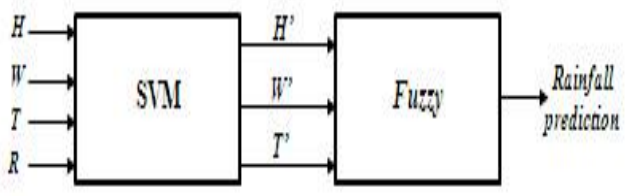


Fig.1 The concept of SVM-Fuzzy [8]

In fuzzy, there are three input variables, one output and 36 rules. Humidity and temperature have three membership functions, i.e. low, medium and high. While wind speed has four membership functions, i.e. calm,

moderate, strong, very strong. The rainfall prediction as an output of the fuzzy system is classified into sunny, very light rain, light rain, moderate, heavy rain, and very heavy rain. The BMKG rainfall classifications are shown in Table 1.

Table 1. Rainfall Classifications

Rain type	Rainfall (mm)	
	1 hour	24 hours
Very light (Clear Sky)	< 1	< 5
Light	1 s/d 5	5 s/d 20
Moderate	5 s/d 20	20 s/d 50
Heavy	10 s/d 20	50 s/d 100
Very heavy	> 20	> 100

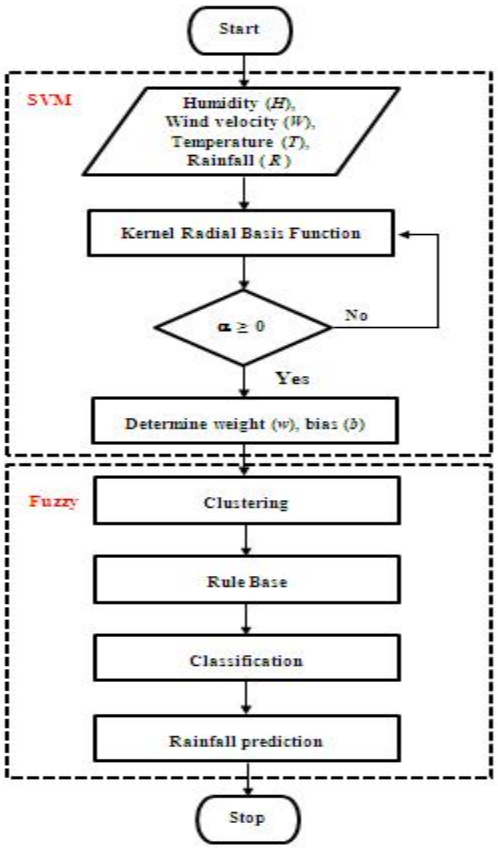


Fig.2 Flowchart of SVM-Fuzzy method [8]

B. Prediction of 3 meteorological input parameters

The prediction results of humidity, temperature, and wind speed of the SVM method in November 2009 are shown in Fig.3. to Fig.5, respectively. The selection of November as sample since it's the starting peak of rainy season.

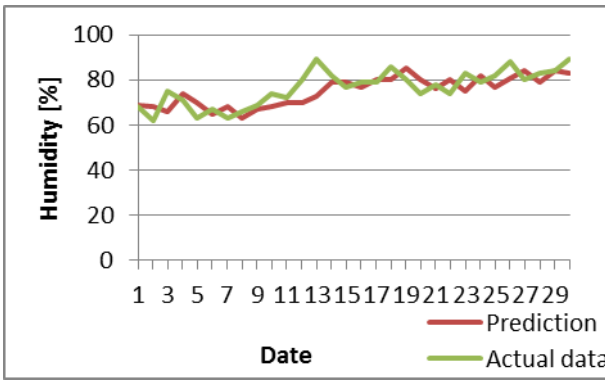


Fig.3 The prediction results of humidity [8]

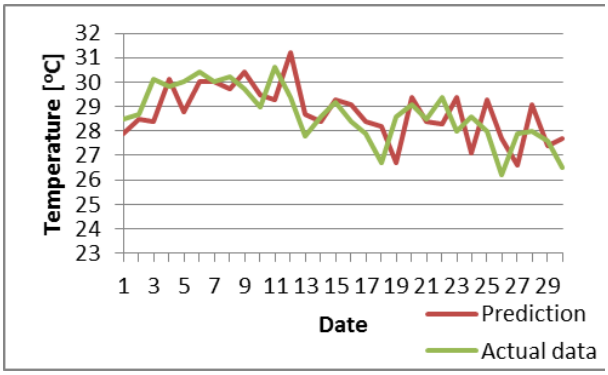


Fig.4 The prediction results of temperature [8]

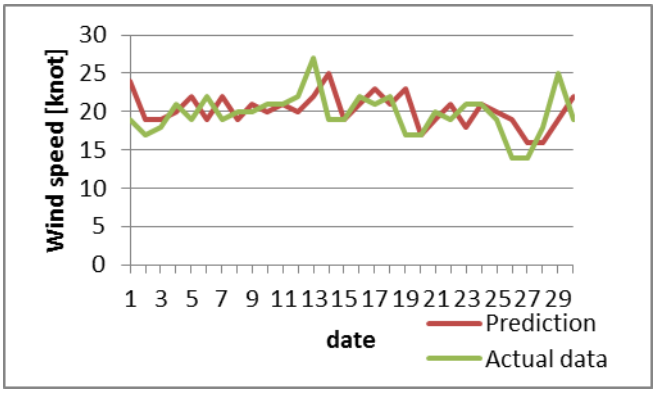


Fig.5 The prediction results of wind speed [8]

From Figure 3-5, a quantitative meteorological daily prediction are generated by SVM to be fed into Fuzzy. It can be seen that prediction is quite accurate and also following the trend of actual data. The forecast parameters are then inputted into Fuzzy for clustered. The result shown in Fig.2.

Table 2..*Clustered SVM-Fuzzy 2009*

Month	Data	Number of Events					Prediction		Acc (%)
		Clear Sky	Rain				T	F	
			Light	Moderate	Heavy	Very Heavy			
Jan	Act	9	3	12	7	0	17	14	
	Pred.	10	11	9	1	0			
Feb	Act	10	7	6	3	2	21	7	
	Pred.	9	11	6	2	0			
Mar	Act	25	4	2	0	0	24	7	
	Pred.	22	9	0	0	0			
April	Act	22	5	3	0	0	25	5	
	Pred.	23	7	0	0	0			
May	Act	23	5	3	0	0	24	7	
	Pred.	27	4	0	0	0			
June	Act	29	0	1	0	0	29	1	
	Pred.	30	0	0	0	0			
July	Act	29	2	0	0	0	25	6	
	Pred.	26	5	0	0	0			
August	Act	31	0	0	0	0	31	0	
	Pred.	31	0	0	0	0			
Sept	Act	27	1	2	0	0	27	3	
	Pred.	30	0	0	0	0			
Oct	Act	29	1	1	0	0	29	2	
	Pred.	29	2	0	0	0			
Nov	Act	26	2	1	1	0	24	6	
	Pred.	29	1	0	0	0			
Des	Act	18	7	2	4	0	15	16	
	Pred.	14	14	3	0	0			
Result							291	74	80

.

III. COMPARISON OF VARIOUS ALGORITHMS

There are two main approach in forecasting, quantitative and qualitative measure. In this paper, four quantitative approach are selected, i.e. hybrid Genetic Algorithm-Neural Network (GA-NN), Wavelet-Neural Network (W-NN), ARIMA and Adaptive Splines Threshold Autoregression (ASTAR). The performance of each algorithm are compared as linear validation curve and alsom from RMSE value.

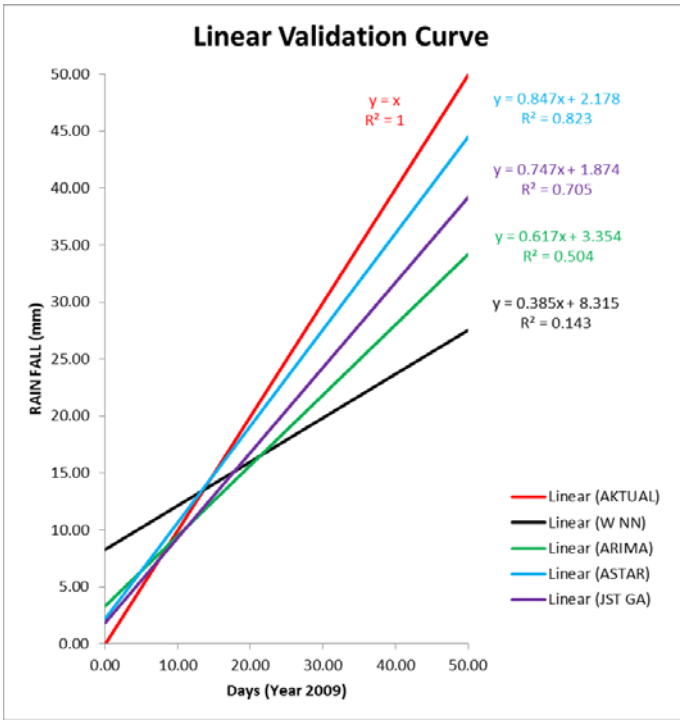


Fig.6 Linear Validation Curve

Result shows from Fig 6, that ASTAR outperform other algorithms with a tight linearity to actual data. This is due to the fact that ASTAR is best in dealing non-stationary data like the rain gauge. Moreover, for conformity, the RMSE value for each algorithm can be seen in Table 3.

Table 3.Comparison of RMSE Value

Methods	RSME
Genetic Algorithm – Neural Network	0,0921
Wavelet Neural Network	0,3219
ASTAR	0,0243
ARIMA	0,2392

It can be seen that ASTAR has lowest RMSE value compare to others. It seems that GA-NN has a close performance to ASTAR. A deeper review of Artificial Intelligence and Numerical Statistic Approach were discussed more in Indrabayu, et.al [9,10].

For Qualitative approach, three algorithm are used for comparison i.e. NN-Fuzzy, ANFIS and SVM-Fuzzy.

Unlike the previous approach, the performance of algorithms are measured on how well the system can clustered the forecast rainfall event to actual data.

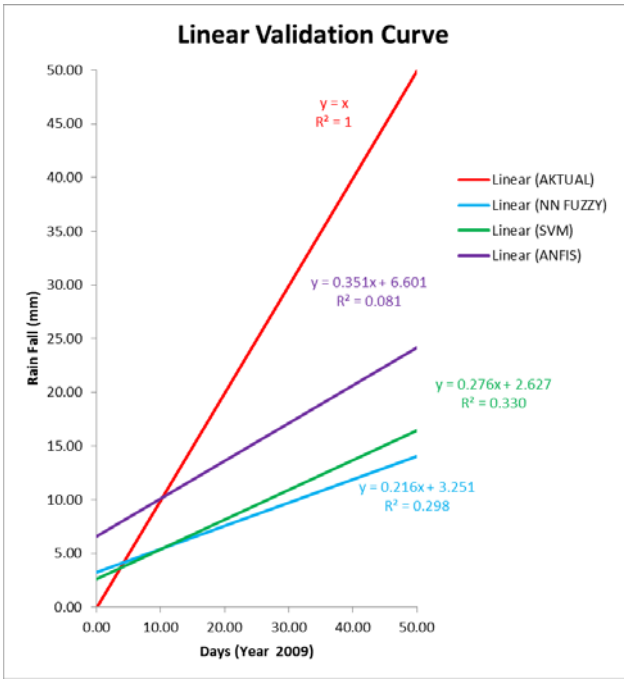


Fig. 7 Linear Validation Curve (Qualitative)

ANFIS shows the worst result compare to others.
In percentage accuracy point of view is shown in Table 4.

Methods	Accuracy %
ANFIS	65
Neural Network – *Fuzzy*	75,8
SVM – Fuzzy	80

.

IV. SAMPLING TIME OF DATA

BMKG has what so called "*taman alat*" which is a collection of weather monitoring instruments for each meteorological parameter. A Staff is assigned for each *taman alat* that spread out on several spot in the city. Daily data are recorded from averaging three times outlook of monitoring result.

From correlation check of parameter against rainfall event, only 3 parameters i.e. land surface temperature, humidity and wind speed showed better correlation property. Suspected variables like solar radiation and air pressure surprisingly have a very insignificant correlation to next day rainfall (less than 0.2). We believe that a smaller time sampling would give a better correlation and for sure would lead to better forecasting. A new radar was installed on Civil Engineering UNHAS by LAPAN (National Space and Flight Agency) in the late 2012. The radar is automated weather service monitoring which SVM-Fuzzy has a better outfit to actual data in term of linearity.

required no conventional recorded from operator. The sampling resolution has been set to 15 minutes resolution. The result shows in fig 8 and 9.

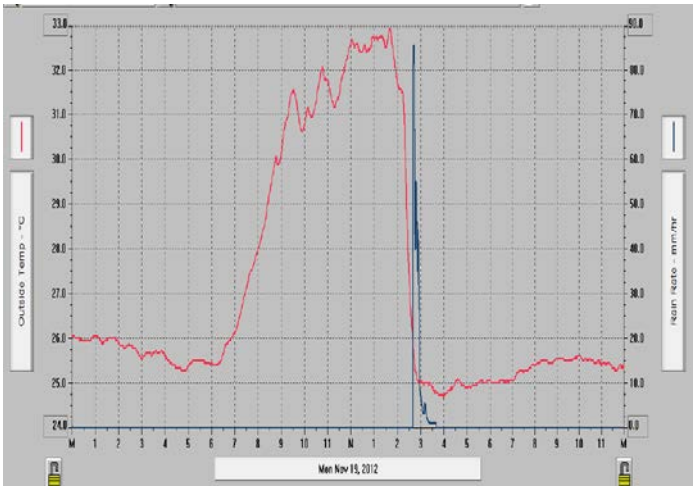


Fig 8. Overlay between Temperature and Rainfall

By overlaying both parameters, it can be found that temperature indicators shows a high fluctuation around 4-6 hours before rainfall event occurs. If smaller resolution time (2-3 hours) are used instead of averaging 1 day sampling time would give a better result in prediction. This is also true for wind speed and humidity. Fig 9 shows the relationship of parameters.

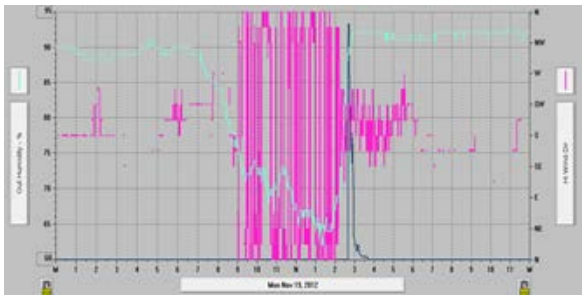


Fig. 9. Overlay Wind speed, Humidity, and Rainfall

Wind Gauge is represented by red lines and humidity is shown as light blue line. Wind Speed becomes a good indictor around 1-5 hours before rainfall event. A significant humidity declining are falling from 6 hours to the rainfall event. Again, the future research are so promising to gain a better accuracy with these new sampling time resolution.

V. CONCLUSION

Several powerful methods of data series predictor have been implemented in this research, both from AI and Statistical calculation. It seems ASTAR has shown better performance followed by hybrid AI (GA-NN) for quantitative based prediction. As qualitative based point of view, SVM-Fuzzy gives higher percentage of accuracy compare to NN-Fuzzy and ANFIS.

A smaller resolution sampling time should be implemented for all weather service to have a closer relationship among parameters. Future research will have not only smaller sampling time but also more suspected parameters that potentially linked to rainfall event.

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Agricultural Water Use in South Sulawesi during the Dry Season

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Agnes Rampisela（Hasanuddin Univ）
Sartika Laban（UGAS, Ehime Univ）

Supported by

"Water Management Project“
Research Institute for Humanity and Nature (RIHN), Japan

Background of This Study

- Three primary canals diverted from Bili-Bili dam irrigate 23,600 ha of Jeneberang River watershed.
- Water User's Association (P3A), irrigated from a gate in the 2nd canal, has been completed in 2007.
- Rice can be cultivated in dry season May – Dec.
- Based on the reliance to the water manager (Mandro Jene) and the cooperative activity (Gotong Royong) by all farmers
- But still, rice has been cultivated under insufficient water even in the 1st dry season in the lower reach.

What we are studying now.

- Clarifying the water use feature for rice in the drying season.
- Knowing the intellect of farmers and P3A for water management.

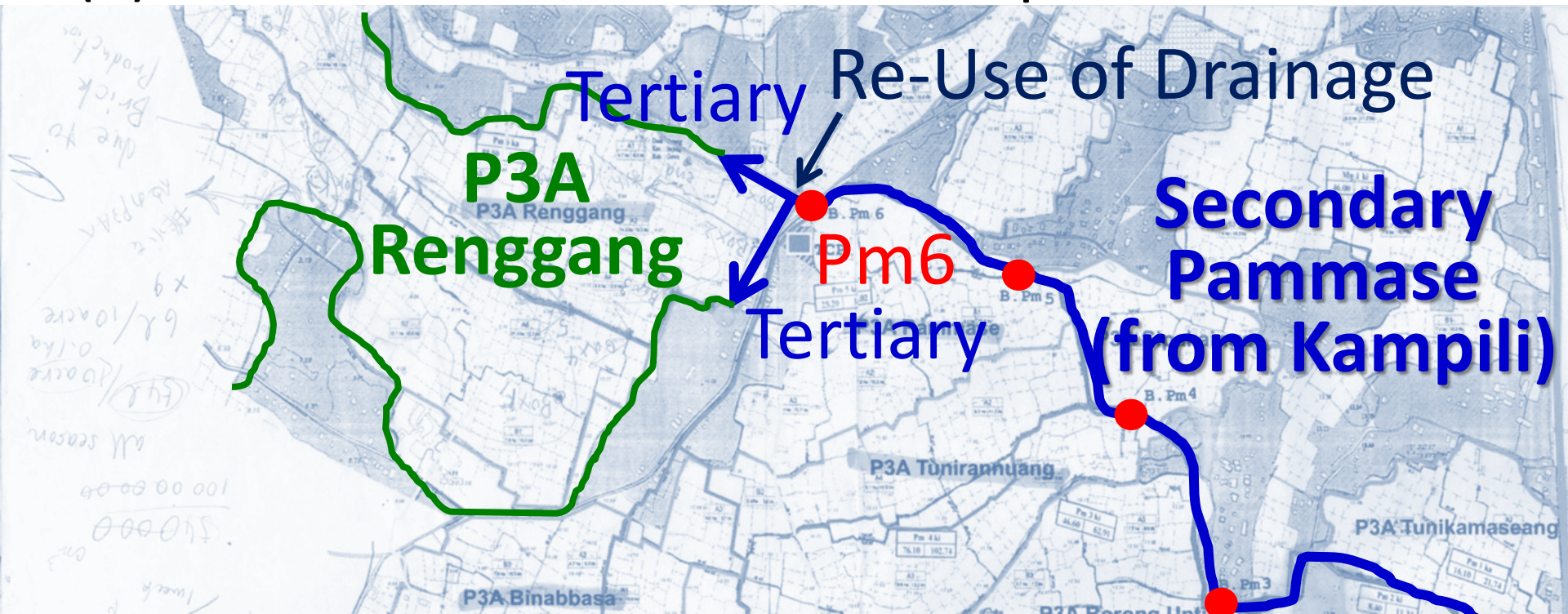
What we will study for future.

- Servicing empowerment of P3A aiming more effective and sustainable water use.

Specification of P3A Renggang in GP3A (FWUA) Sirannuang

(1) Irrigated by 2nd Pammase through Pm6Ka and reused drainage water from P3A Sappaya, etc.

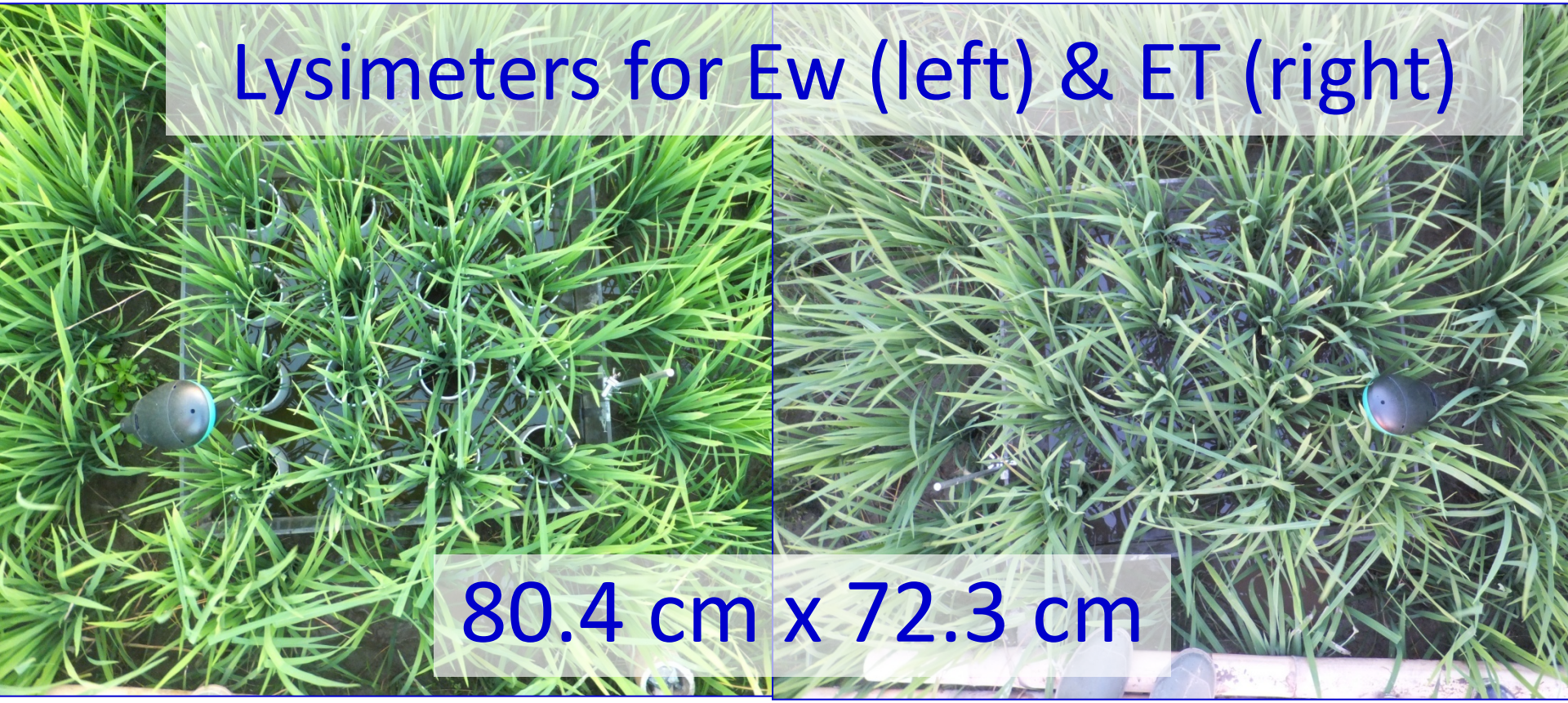
(2) 88.5 ha with 119.48 *l*/s under plan at Pm6Ka

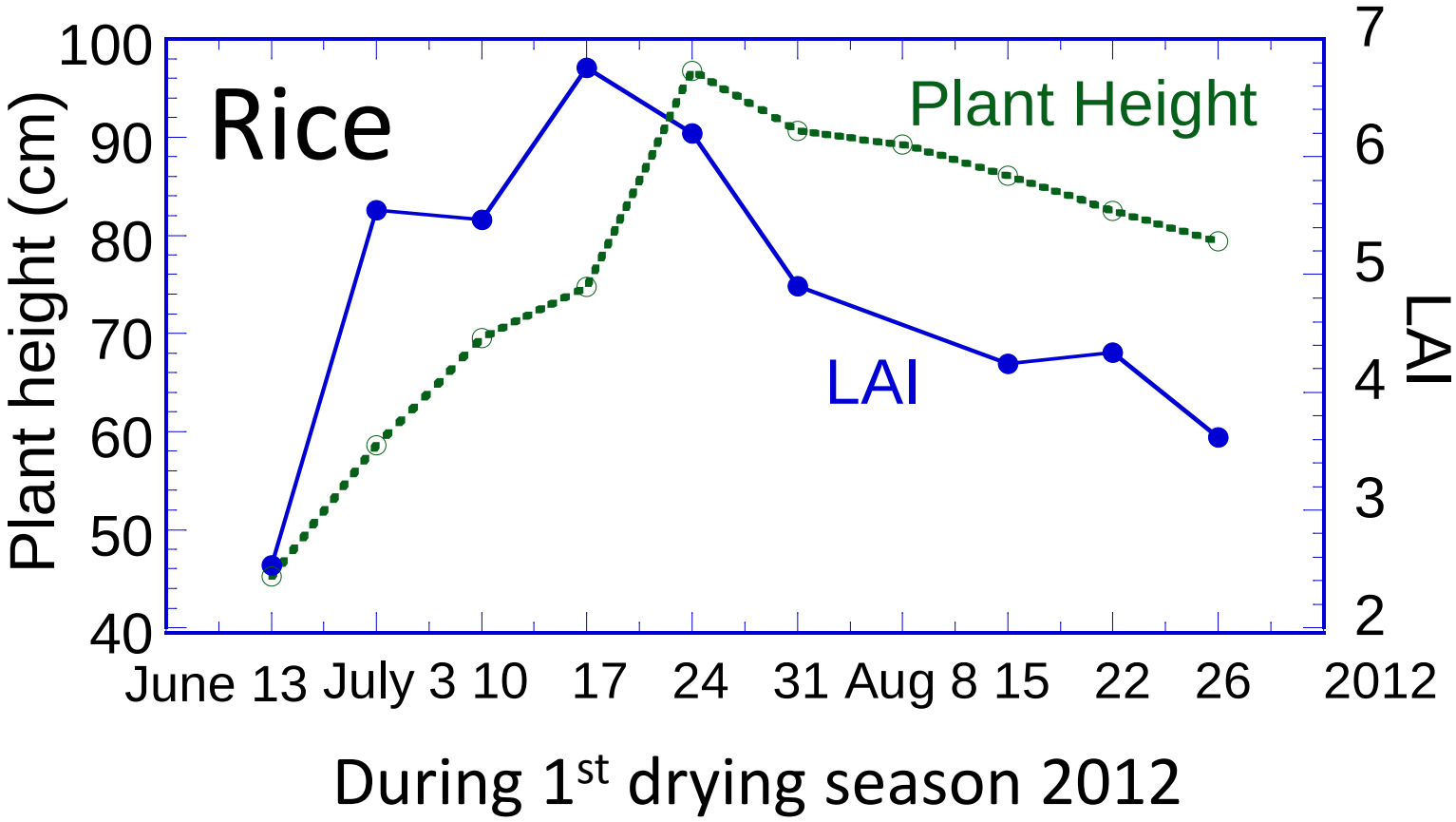


Measurements in the experimental field and P3A Renggang, 2012

- Rice (*Oryza sativa* L. subsp. *Javanica*), cv. Ciliwung
- Transplanted on May 25, Harvested on Aug 25
- Water balance terms
- Evapotranspiration (ET) measured by Lysimeters
- ET estimated by Bowen Ratio Energy Balance
- Crop growth measurements

Meteorological measurements


Lysimeters for Ew (left) & ET (right)
80.4 cm x 72.3 cm



Variation of plant height and LAI in P3A-Renggang (Transplanted on 25 May 2012)

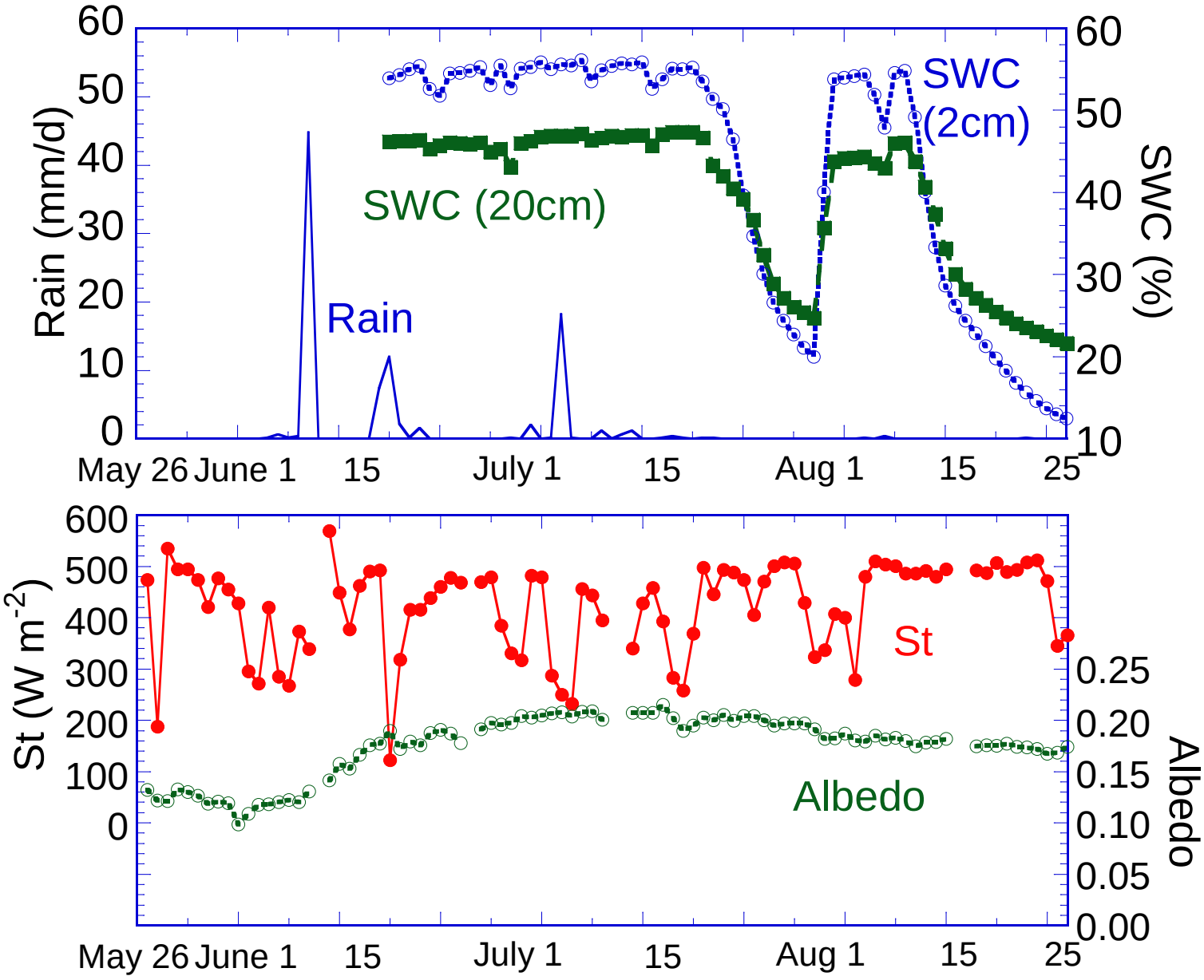


Fig. 2 Daily variation of rain, soil water content (SWC), solar radiation (St) and albedo, 2012

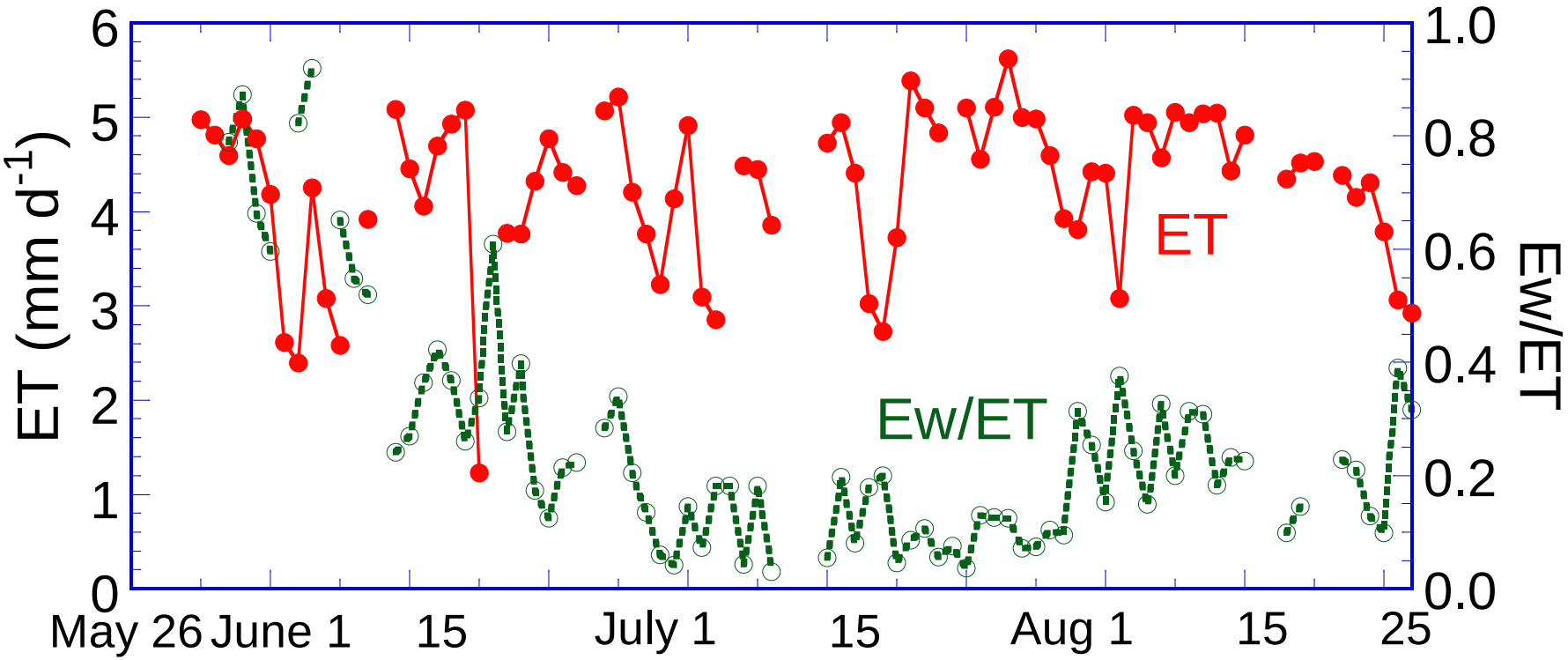
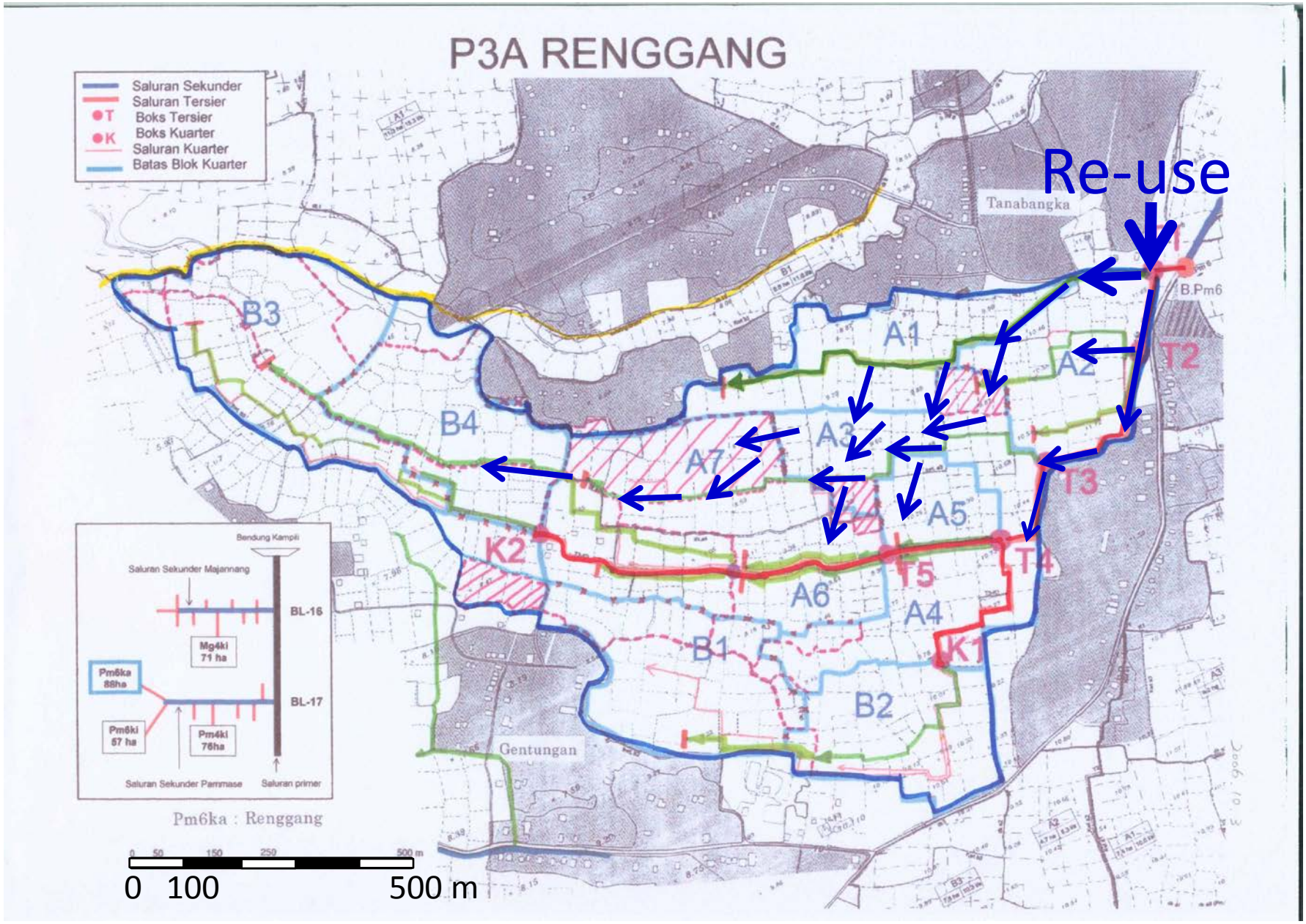
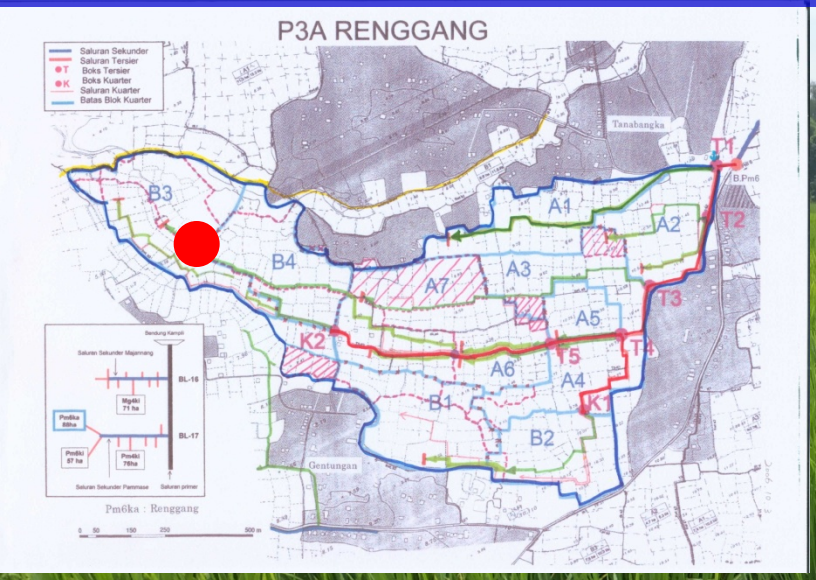


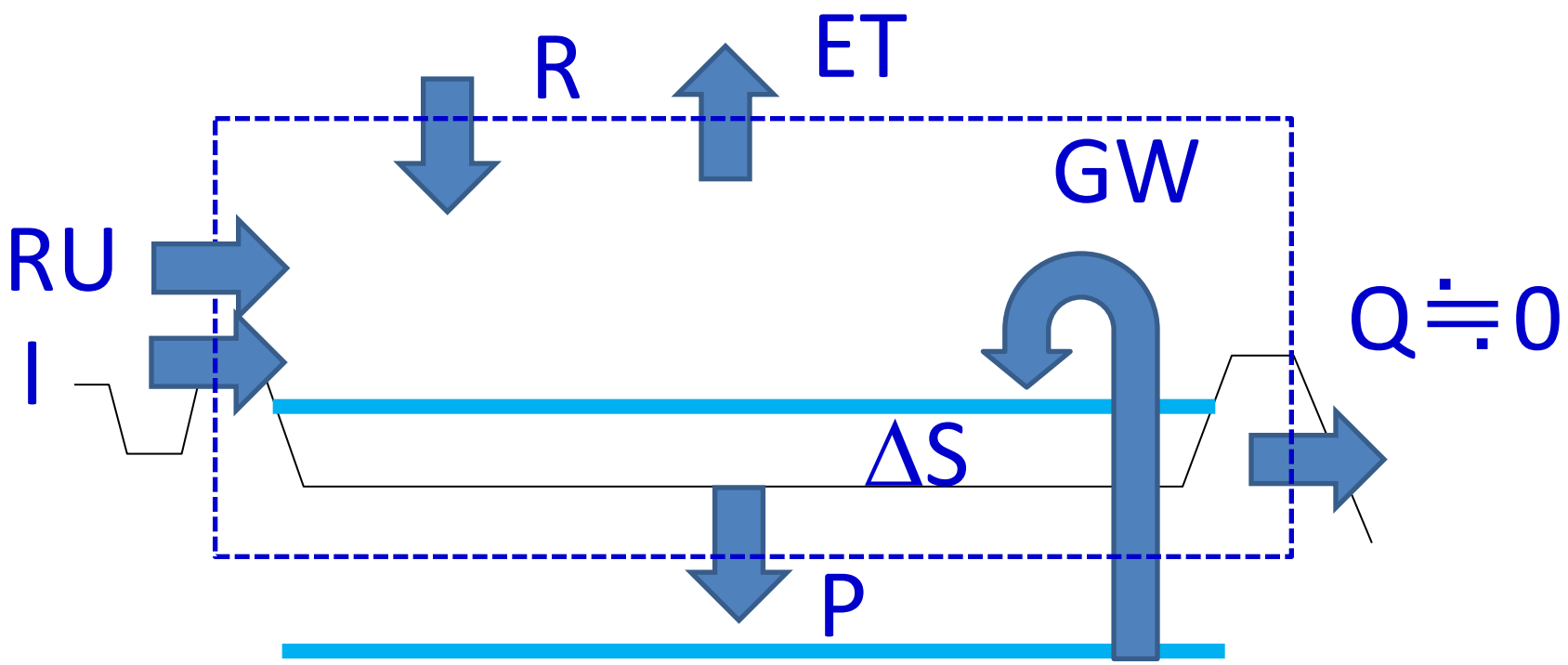
Fig. 5 Daily variation of ET and Ew/ET, 2012


P3A RENGGANG
Saluran Sekunder
Saluran Tersier
T Boks Tersier
K Boks Kuarter
Saluran Kuarter
Batas Blok Kuarter
Re-use
Tanabangka
B.Pm6
B3
B4
A1
A2
A3
A7
A5
A6
A4
B1
B2
T1
T2
T3
T4
T5
K1
K2
Gentungan
Bendung Kampili
Saluran Sekunder Majannang
BL-16
Mg4ki
71 ha
Pm6ka
88ha
BL-17
Pm6ki
57 ha
Pm4ki
76ha
Saluran Sekunder Pammase
Saluran primer
Pm6ka : Renggang
0 50 150 250 500 m
0 100 500 m

Additional efforts; Ground water use



Water Balance Scheme in P3A Renggang



$$R + I + RU + GW = ET + P + Q + \Delta S$$

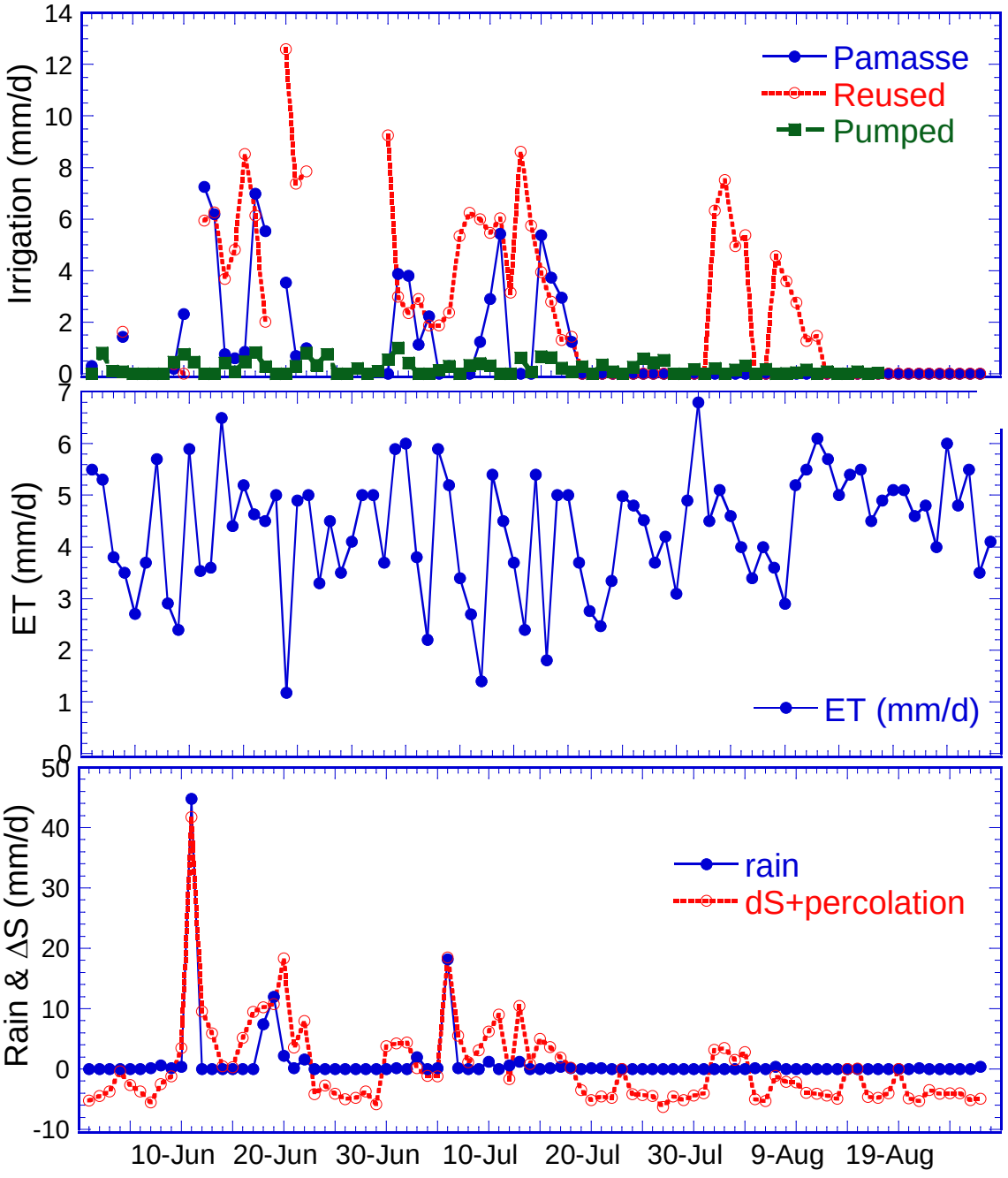
Taking long period WB makes $\Delta S = 0$

Irrigation

ET

Rain

Storage



Canal

Re-use

Ground water

Daily variation of water balance terms in Renggang

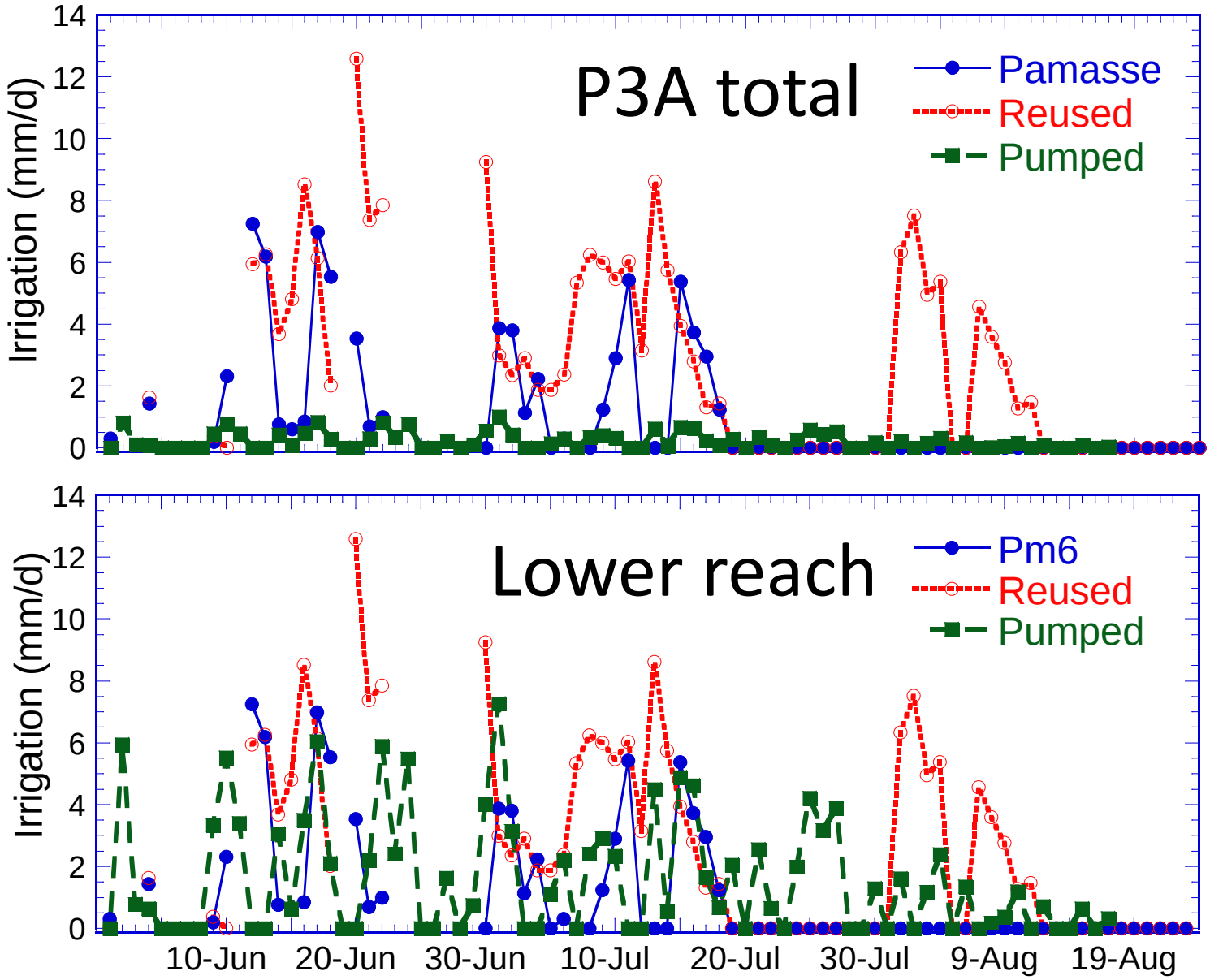

P3A total
Pamasse
Reused
Pumped
Irrigation (mm/d)
0
2
4
6
8
10
12
14
Lower reach
Pm6
Reused
Pumped
Irrigation (mm/d)
10-Jun
20-Jun
30-Jun
10-Jul
20-Jul
30-Jul
9-Aug
19-Aug

Table Measured and estimated water balance in Renggang P3A

	rain (mm)	Canal Irrig. (mm)		Pump (mm)	ET (mm)	ΔS (mm)
		Pammase	Reused			
June 1-30	69.60	37.67	76.41	7.97	120.25	71.40
July 1-31	25.00	34.25	70.46	8.07	122.29	15.48
Aug 1-27	1.20	0.00	37.83	1.38	111.40	-71.00
Sum	95.80	71.92	184.70	17.41	353.95	15.89

	rain (%)	Canal Irrig. (mm)		Pump (%)	ET (%)	ΔS (%)
		Pammase	Reused			
June 1-30	36.32	19.66	39.87	4.16	62.75	37.25
July 1-31	18.15	24.86	51.14	5.86	88.76	11.24
Aug 1-27	2.97	0.00	93.62	3.41	275.72	-175.72
Sum	25.90	19.45	49.94	4.71	95.70	4.30

Have farmers recognized the geological properties?

Hydraulic conductivity

k = 1.4 E-4 (m/s)

Conclusions of this research

1. Water balance features

 1) Positive ΔS in June and July

 → Conserved in the ground (Reuse important).

 2) Negative ΔS in August

 → Soil and ground water was consumed for ET

2. Rice Cultivation in the 1st dry season in this P3A

 1) Water is utilized under limited conditions (Reuse and Ground water)

 2) Knowing climatic conditions and ground water properties from experiences

What can we do in future by this co-research?

1. Recommendation for better water management
   1) Organize more systematic relationships between each Water User's Associations
   2) Start irrigation from the lower reach
   3) Constructing reservoirs
   4) Storing more water in reservoirs and under ground during rainy season
2. Empowerment for farmers
   1) Introducing new commercial crops
   2) Educating the function of agricultural water use

SOME PROBLEMS IN DEVELOPING MECHANICAL GRAIN DRYER AND RESEARCH IMPROVEMENT

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ABSTRACT

Mechanical grain drying is not much practiced yet by the farmer for several reasons such as : high initial investment, high operation cost, too large machine capacity, etc. In the following research, it had been designed mechanical grain dryer based on silo form as one of solution to overcome the problem on grain drying.

The objectives of this research were to know the effect of heating temperature and tempering methods on grain drying process and also to evaluate the performance of constructed facilities and evaluate dryeration method.

In this research, it had been designed a mechanical drying machine based on silo form, with the diameter of 175 cm, cylinder height of 195 cm, and hopper slope of 60^o made from steel plate. It had been equipped with pneumatic conveyor, centrifugal blower, gas burner, and using LPG gas as the drying fuel. The research used corn and rough rice as the research materials with initial moisture content of 28.96% (w.b) and 29.30% (w.b) respectively. The treatments applied in this research was the variation of air drying temperature and drying methods ie : conventional and dryeration methods.

The results showed that in the drying of corn, convective heat transfer coefficient was found around 0.446 – 0.572 $W/m^{2o}C$ for temperature range of drying air of 70 – 100^oC, much higher than sun drying which only 0.026 $W/m^{2o}C$. Whereas in tempering process the values were between 0.120 – 0.571 $W/m^{2o}C$. While the values of drying rate constant (k_M) around 0.145 – 0.265 1/hour which also higher than sun drying 0.122 1/hour, while in tempering process around 0.096 – 0.164 1/hour. By using rough rice as the tested material it was found that the consumption of diesel oil and LGP for conventional method were 17 lt and 25.5 kg respectively, while by applying dryeration method they were only 13 lt and 9 kg to dry 2 tons of rough rice. The results showed that Heat Utility Factor (HUF) around 0,80 - 0,93 and Effective Heat Efficiency (EHE) around 0,90 - 0,98.

It could be concluded that silo which was equipped by an aerator could be applied as a grain drying machine with quite good performances. The application of mechanical drying using dryeration was capable to increase drying capacity and decrease fuel consumption largely.

Key words : drying, silo, grain, dryeration, tempering

INTRODUCTION

In Indonesia postharvest handling especially in grain drying are still conducted using solar/sun drying. This method have been known to have so many weaknesses. To improve quality and capacity of grain drying, the goverment of Indonesia has distributed an aid of mechanical grain drying machine to various related institutions and farmer groups which need that machine. However, almost all of those drying machines are not operated for many reason such as high operation cost, fuel cost, drying capacity too large, etc.

High opeartion cost of drying machine is also possibly caused by the choosen method to operate this machine is not adequate. Where generally the grain is dried in the drying machine from high moisture content continuously until desired final moisture content is reached (conevntional drying method). As the results, fuel consumption for drying grain in this method become high, because as the drying procces enter falling rate period the moisture content of the grain become difficult to evaporate, and finally required high fuel consumption. Noyes dan McKenzie (1998), stated that in grain drying removal of 2 – 3 point of final grain moisture content need the largest energy. Using dryeration this final moisture content didn't need to be removed by drying machine, as the result it will increased machine capacity significantly.

The procedure of grain drying using dryeration method is as follow, drying with high temperature is stopped and the hot grains are moved when the moisture content about 2-3% above desired final moisture content. This hot grains are leave for tempering process around 6-12 hours in different container before it is cooled for several hours by using air flow about 0.5-1.0 m^3/min/ton, and after cooling process, the grain are moved into final storage sturctures (Maier, 2003).

The need for energy cost in corn drying about 60% of the total energy needed in grain production (Brooker et al., 1992). This ilustrates that grain drying is an expensive process,

this means the change in grain drying cost will be significantly change total cost of grain production. Selection of cheap drying fuel will also decrease overall drying cost. Drying machine from govenment usually use gasoline, which recently the price increased very high, especially for industrial use. According Gely and Giner (2004), grain drying is a process which need intensive energy, the use of method to reduce energy consumption is economicaly very important and save the environment. Beside the possibility in increasing drying capacity and preserve grain quality better, dryeration can be a promising alternative of grain drying method. However, as this method need relative high invesment for the equipment, require good handling and time, it is need technics and economics analysis to find the best knowledge and application method in practices.

The objectives of this research were to find out the effect of several subtanstial parameters in grain drying by applying dryeration method, evaluated the performance of constructed drying facility, and also evaluated the possibility to develop grain drying facility base on silo form.

RESEARCH METHODS

Material and Equipments

Grain sample used in this research were shelled corn and rough rice totally 8,5 tons and 4 tons respectively, with initial moisture content of 28.96% (w.b) and 29.30% (w.b) respectively. The main equipment was a drying machine constructed in the form of silo, made from steel plate with diameter of 175 cm, cylinder high of 195 cm, hopper slope of 60^{o}, and it could be loaded for 3 tons of shelled corn. For both drying and tempering silo, they were equipped with an aerator made from wire screen installed in the inside of silo with certain shape. The silo drying machine was equipped with pneumatic conveyor, centrifugal blower, burner with LPG (Liquid Petroleum Gas) as the drying fuel for heating drying air.

Procedures

In the following research three different air drying temperature i.e : 70^{o}C, 85^{o}C, and 100^{o}C were used to dry shelled corn, by applying dryeration method. While for rough rice they were 50^{o}C and 70^{o}C by applying dryeration and conventional drying methods to compare the different of those two methods. In dryeration method, drying process was divide into three main processes 1). Heating process in drying silo, 2). Tempering process in tempering silo, and 3). Cooling process by aeration. Heating process was stopped when average grain moisture content reach about 17% (w.b), then the grain was tempered until moisture content decreased to about 14% (w.b) without heating, and finally the grain was cooled using aeration. In the following research, it was also investigated three different tempering method i.e : tempering in the silo, tempering in the sack equipped with an aerator, and tempering using pile equipped with an aerator.

RESULTS AND DISCUSSION

Figure 1 is an example of grain temperature curves during heating (left) and tempering (right) processes respectively.

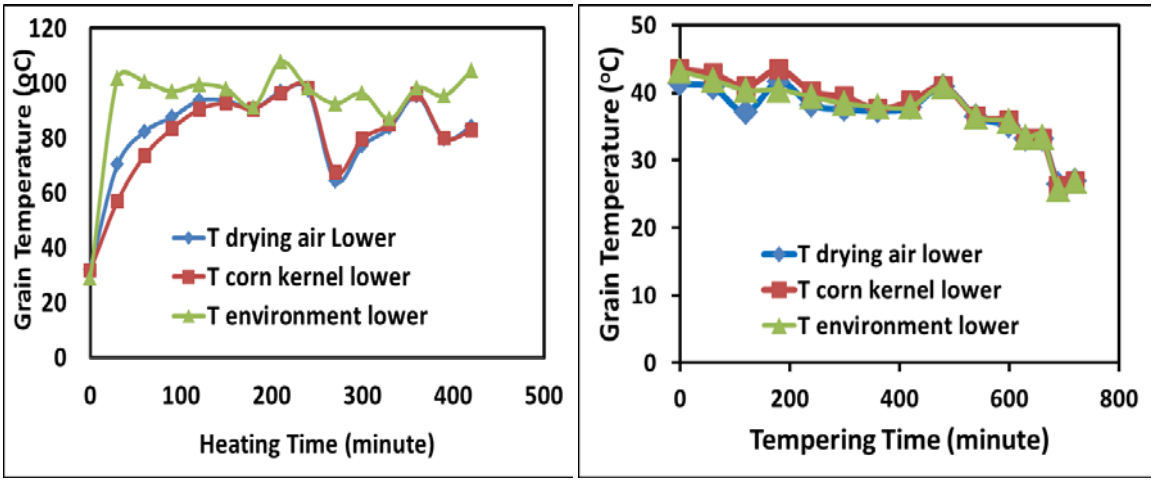

Fig 1. Example of corn grain temperature change during heating in the drying silo (left) and tempering in the sack (right)

In heating process, grain temperature increased as heating time increased, then reached almost constant values, while in tempering process grain temperature decreased along with increasing tempering time, and drastically decreased at the end of tempering time as the result of cooling (aeration) process. Using Newton law of cooling it could be calculate the values of constant of grain temperature increment rate (k_T) both for hetaing and tempering processes.

Tabel 1. Constant of grain temperature increment rate (k_T)
for heating and tempering processes

Drying Temp (^oC)	Heating (1/jam)	Tempering (1/jam)		
		Silo	Sack	Pile
70	0,074	0,169	0,168	0,176
85	0,255	0,183	0,175	0,181
100	0,393	0,154	0,150	0,176
Sun Drying	0,018			

It can be seen that the value of k_T for heating roughly higher than tempering process, this indicated that grain temperature increment was faster than its reduction. When drying air 100^{o}C, k_T reached more than 20 times sun drying, it indicated that grain heating process in mechanical drying much faster than sun drying. During tempering the values of k_T nearly same for the three methods, where the values were quite low. This was possibly caused by the condition where during tempering process the different between grain (corn) temperature and surrounding air temperature was low, as the results heat transfer from the grain to the air run slowly as the absent of flowing air. This also meant that tempering process for dryeration method could be done both using tempering silo, sack equipped with an aerator, or pile equipped with an aerator with almost same results, this could elimanate the need for tempering silo and so it could reduce capital invesment.

Figure 2 shows an example of corn grain moisture change during heating in the drying silo (left) and tempering processes in the sack (right).

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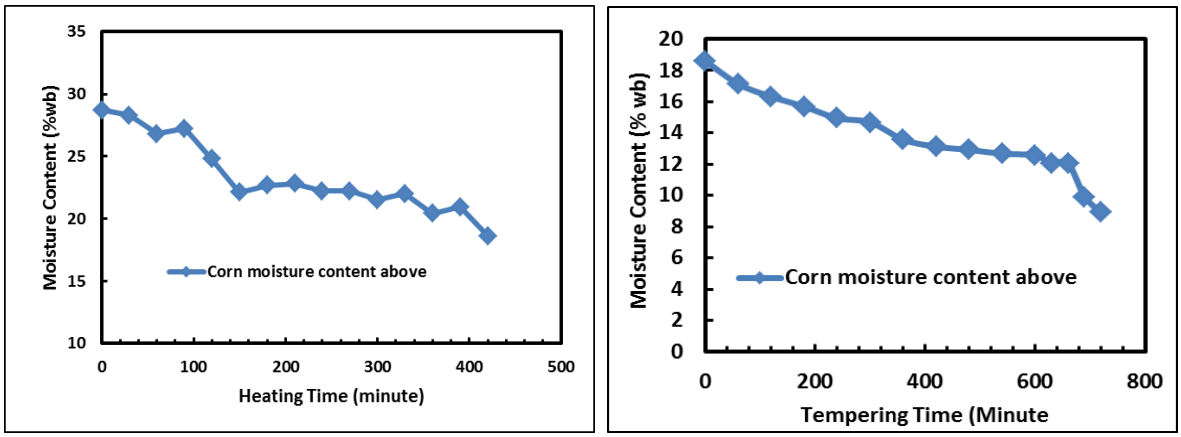

Fig 2. Example of corn grain moisture change during heating in the drying silo (left) and tempering in the sack (right) processes

Using the same analogy as calculating k_T, it could be determined the value of constant of grain moisture content reduction rate (k_M) for heating and tempering processes as shown in Table 2.

Tabel 2. Constant of grain moisture content reduction rate (k_M) for hetaing and tempering processes

Drying Temp. (^oC)	Heating (1/jam)	Tempering (1/jam)		
		Silo	Sack	Pile
70	0,242	0,164	0,156	0,164
85	0,145	0,096	0,110	0,132
100	0,265	0,146	0,158	0,162
Sun Drying	0,122			

As for k_T, the values of k_M were also higher than sun drying, which roughly almost twice except at air drying temprtarure 85^o. This indicated that reduction of grain moisture content in mechanical drying much faster than sun drying. For drying temperature of 85^oC, the low value of kT was probably caused bay the fact that grain sample had lower initial moisture content (23% w.b) than in air drying temperature of 70^oC and 100^oC which were 34.67% (w.b) and 28.80% (w.b) respectively. Commonly the values of k_M in tempering process were relatively low, even lower than k_M of sun drying. This indicated that water removal from the grain took place very slowly, slow water release from the grain wolud prevent grain cracking and fissuring to occur, so that it could retain better grain quality. Ezeike and Otten (in Maier,

2003) sated that tempering of corn grain is the most pactical method in retaining grain quality while increasing higher drying capacity. Further it was also stated that the best tempering process took place in still air.

By applying lump capacytance method it could be determained the value of convective heat transfer coefficient for heating and tempering processes (h) as can be seen in the folloowing table.

Tabel 3. Convective heat transfer coefficient for heating and tempering processes (h)

Drying Temp. (^oC)	Heating ($W/m^{2o}C$)	Tempering ($W/m^{2o}C$)		
		Silo	Sack	Pile
70	0,572	0,298	0,219	0,571
85	0,446	0,433	0,130	0,120
100	0,558	0,214	0,309	0,249
Average	0.525	0.315	0.219	0.313
Sun Drying	0,026			

In heating h indicated the heat transfer from heating (drying) air to the grain, while in tempering process it indicated heat transfer from grain to the surrounding air. During heating process, the average value of h almost 20 times higher than sun drying, while during tempering process around 8.4 to 12.1 times higher than sun drying. This indicated that the rate of heat transfer both entering or leaving the grain considerably faster than sun drying. Early (1983), gave the table of h values, where for still air was 6 $W/m^{2o}C$ and moving air at 3 m/s (10,8 km/hour) was 30 $W/m^{2o}C$. However, in drying process grain in the bulk condition, air mass in the bulk was lower, this condition restricted contat between grain kernel and surrounding air, this caused the value of h was lower for both mechanical and natural darying. Although the values of h in tempering process were higher than sun drying, they were only 54% of h values of heating process. As for the values of k_M, lower value of h during tempering process meant favourable for drying process, as it colud prevent good grain quality. According to Proctor (1994), dryeration which firstly developed for corn grain, was a

combination between drying with a hot air and aeration cooling. In this method tempering process was determined which was between hot air drying period and cooling period. Further it was also stated that grain damage could be reduced and drying efficiency could be increased by using remaining heat in the grain kernel to evaporate water during cooling process. The three methods of tempering evaluated in this research had almost same values of h, indicated that the three methods performed almost the same speed of grain heat reduction, and so would need almost the same time in tempering the grain.

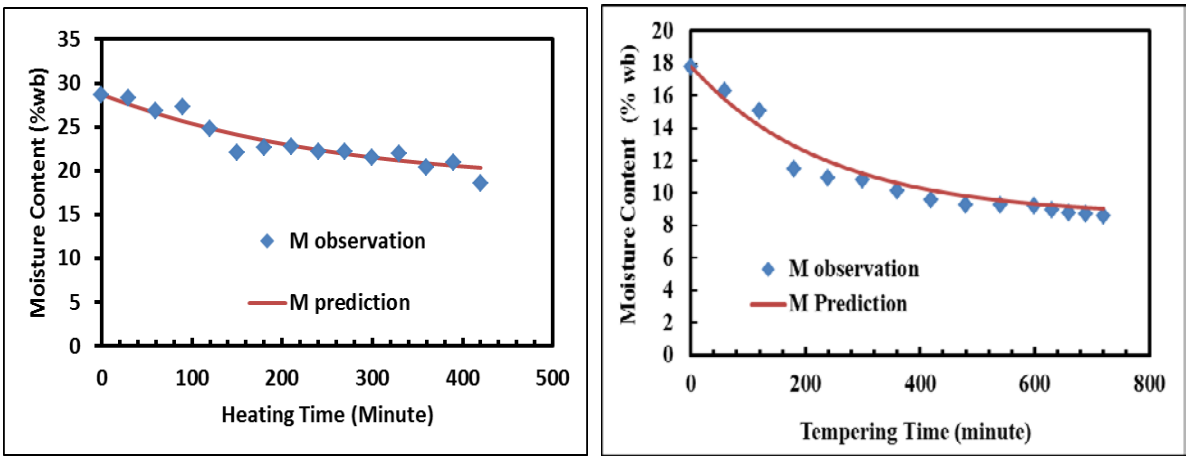

Figure 3. Example of prediction vs observation curve for moisture reduction during heating (left) and tempering (right) processes

Figure 3 shows an example of curve fitting of corn grain moisture reduction between prediction equation and observation results. It can be seen that the prediction results closed to the observed data (R^2 = 0,92), it showed that the analogy of Newton law of cooling could be used to derived prediction equation. In heating process, applying Arrhenius Theory the values ok k_M could be related to drying temperatures (T), so that it could be found a mathematical equation (1). This equation could be used to estimate moisture content of the grain during heating process in dryeration.

$$M_{(t)} = e^{\left(-0{,}743044 . e^{-\frac{-884{,}1}{T}} . t\right)} \left(M_{(in)} - M_{(eq)}\right) + M_{(eq)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

From analysis it was found that the values of HUF(Heat Utilization Factor) which was the comparison between utilized heat to supplied heat lied between 0.8 – 0.9 for corn and 0.84

– 0.87 for rough rice. While EHE (Effective Heat Efficiency) indicated the sensible heat in the drying air as the effective heat which could be utilized for drying process. This value was the comparison between the difference of dry bulb temperature of the drying air and leaving air divided by the difference between dry bulb and wet bulb of drying air, and in the following research lied between 0.90 – 0.98 for corn and 0.91 – 0.98 for rough rice. This showed that the utilization of heat during drying process was very effective or heat loss was very small, indicated that constructed drying machine could work very good in conserving heat of drying air.

In drying shelled corn using dryeration, diesel oil consumption to drive blower to push drying air and blower of pneumatic conveyor was around 4.6lt/ton. While LPG cnsumption to heat drying air about 9.1 kg/ton depend on drying air temperatur used.

The comparation of drying method between conventional and dryeration could be evaluate from the results of rough rice drying process which had been performed. Drying rough rice using dryeration method needed 6.5 lt/ton diesel oil, while for conventional method needed 8.5 lt/ton, dryeration decreased diesel oil consumption almost 25%.

While the need of LPG was 4.5 kg/ton for dryeration and 12.75 kg/ton for mechanical conventional drying methods, this was decreased about 65 %. This indicated that drying applying dryeration could save fuel consumption quite large, especially the consumption of LPG to heat drying air. Maier (2003) stated that dryeration could decrease fuel consumption about 15-30% and increased grain dryer capacity up to 50% or more. So many years, many researchers had confirmed the advantage of dyeration and in-bin drying.

In conventional rough rice drying, drying machine capacity was 0.190 ton/hour, while using dryeration method, there was an increased of machine capacity of 50.5%. The results of research conducted by Montross and Maier (200), showed that drying using hot air followed by dryeration or cobination drying, could reduce the cost of drying about 10% compared with

continuous drying or drying with cooling process in the machine. The highest advantage could be found for the increase of drying capacity of 72% and 159% when dryeration and combination drying were applied compared to conventional drying or drying with cooling process in the machine.

CONCLUSIONS

1. A silo equipped with an aerator could be applied as mechanical grain drying machine which showed quite good performances.
2. Reduction of grain moisture content during heating process could be predicted using equation which was formed based on Newton law of cooling and Arrhenius.
3. Heating rate constants, drying rate constants, and convection heat transfer coefficients in this drying process showed relatively high values and far more than sun drying.
4. The application of dryeration method could increase drying capacity of the machine more than 50%, reduced fuel consumption more than 23%, and reduced LPG consumption more than 64%.

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A trial for innovative development of food science and technology through agricultural sciences.

Nutraceuatical benefits of natural products produced in Seto inland sea area

Graduate School of Agriculture, Kagawa University
Hirotoshi Tamura, Prof. Food Chemistry

Development of new systems and products by the staff in Faculty of Agriculture, Kagawa University

pomology

Agricultural engineering

olericulture

agronomy

Sciences in biology, Environment, plant pathology, food and chemistry

Biotechnology, micropropagation

Ornamental Horticulture

Marine culture

Faculty of Agriculture, KU has 4 Research Institutes

1) Phytogene frontier

Phytogene sciences for getting resitance to environmental stress

2) Biochemistry and chemical biology

Understanding of biological activities by chemistry and biochemistry aspects

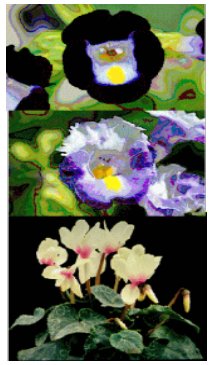
3) Food safety and nutraceutical science

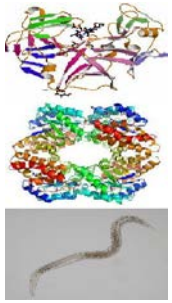
Food safety and molecular nutrition studies for local food industries.

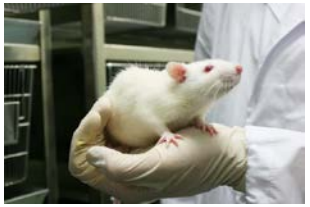
4) Agricultural resources and technology

Production technologyof beneficial crops, fruits and vegetables fitting local climate







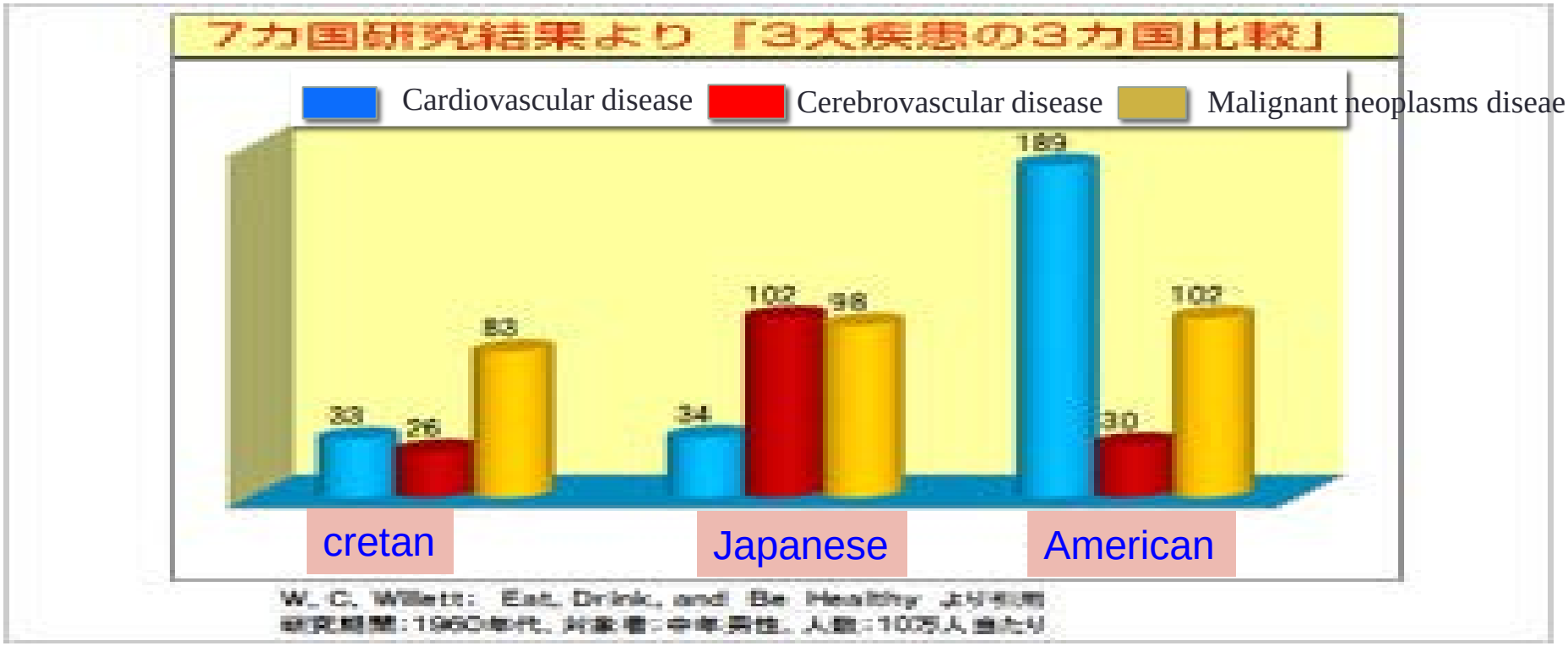



Possibility of agricultural business

- Tentative target: Olive oil production in Kagawa
- 1) metabolitesin pomace portion of olive have several biological benefits for human health.
- 2) there are some varieties
- 3) seasonal change of metabolites and harvest time
- 4) there is the limitation of plantation. Mediterranean climate is required.
- 5) slightly high cost for consumers, but good tastes and characters like wines.

Character of mediterranean diets

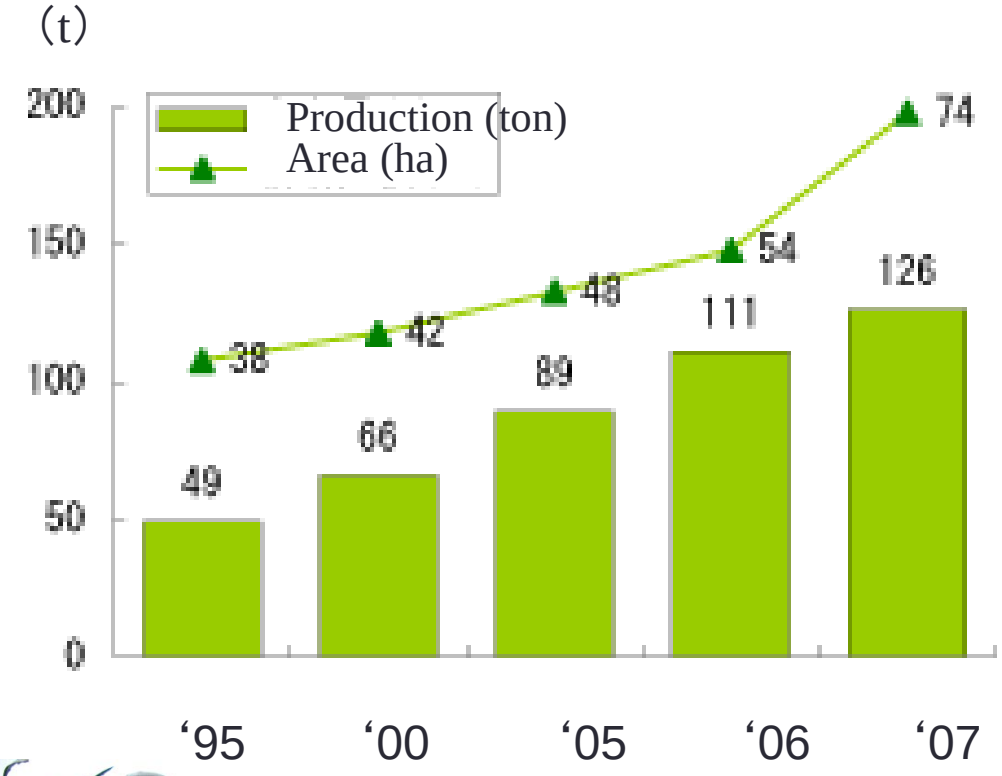
Mediterranean diets is said to be healthy foods. So, people who live in mediterranean and used to have those foods as their daily meal did not have so many life-style related disease. Normally olive oil is common in the diets.



SETO IS ABUNDANT OF USEFUL FOODS MATERIALS

Cancer is the top of mortality in Japan (28.7%)
Allergy is spreading at 30% of the total population.
A half of People has Helicobacter pylori in stomach.
Patience of diabete disease is No 2 in Kagawa

Olive production in Japan



World production of olive oil in 2009

Spain	1,200,000
Italy	540,000
Greece	348,000
Siria	150,000
USA (California)	50,000
Japan (Kagawa)	140* (t)

Shodoshima Olive production association started in 2006

Anti-arteriosclerosis, whitening effect, anti-pylori, antioxidant, anti-allergy activities

Products: yellowtail and beef with olive fat.

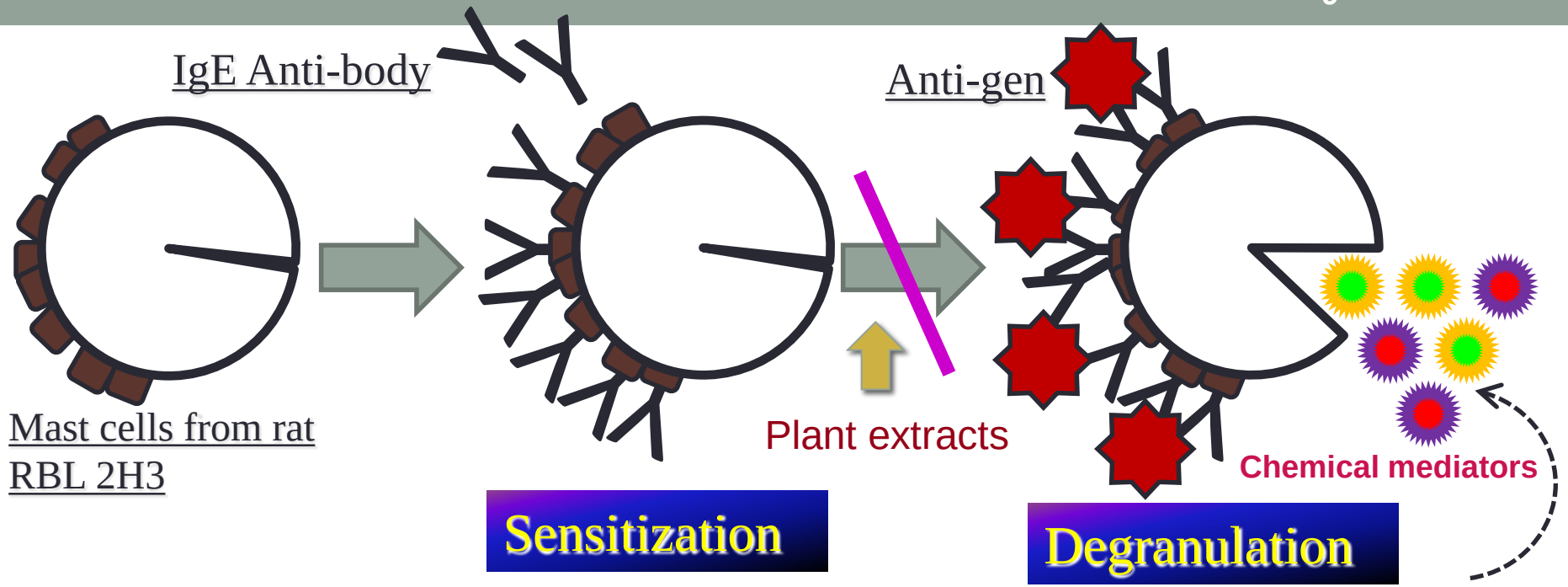
Candy, tea, cosmetics and supplements

Significance of food allergy in Japan

- A half of Japanese may have some kinds of allergies.
- Patients are increasing year by year in Japan. It becomes one kind of popular social problems. Thailand is not so serous problems in the society.
- Food packages have to display a list of food materials that has related some serious food allergies.

Hypothesis: food habits changed our tolerance to food allergy

1) Bitter taste of olive is one kind of character of extra virgin oil
2) Vegetables is not bitter and astringency



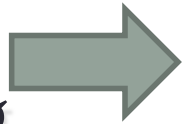
- Dilatation of blood vessels
- Hyperlucency

Physiological active substances
- Histamine
- Leukotriene
- Serotonin etc

- Edema
- Pruritus

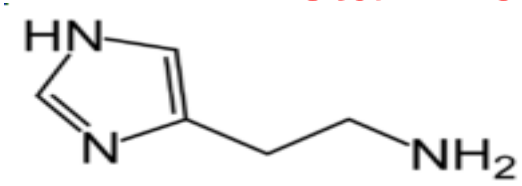
Drug design against Allergy

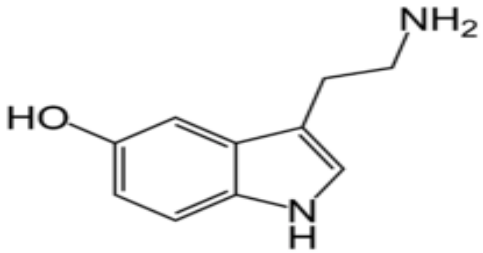
- Steroid drug
- Anti-Histamine drug



side effects

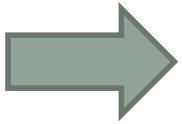
histamine



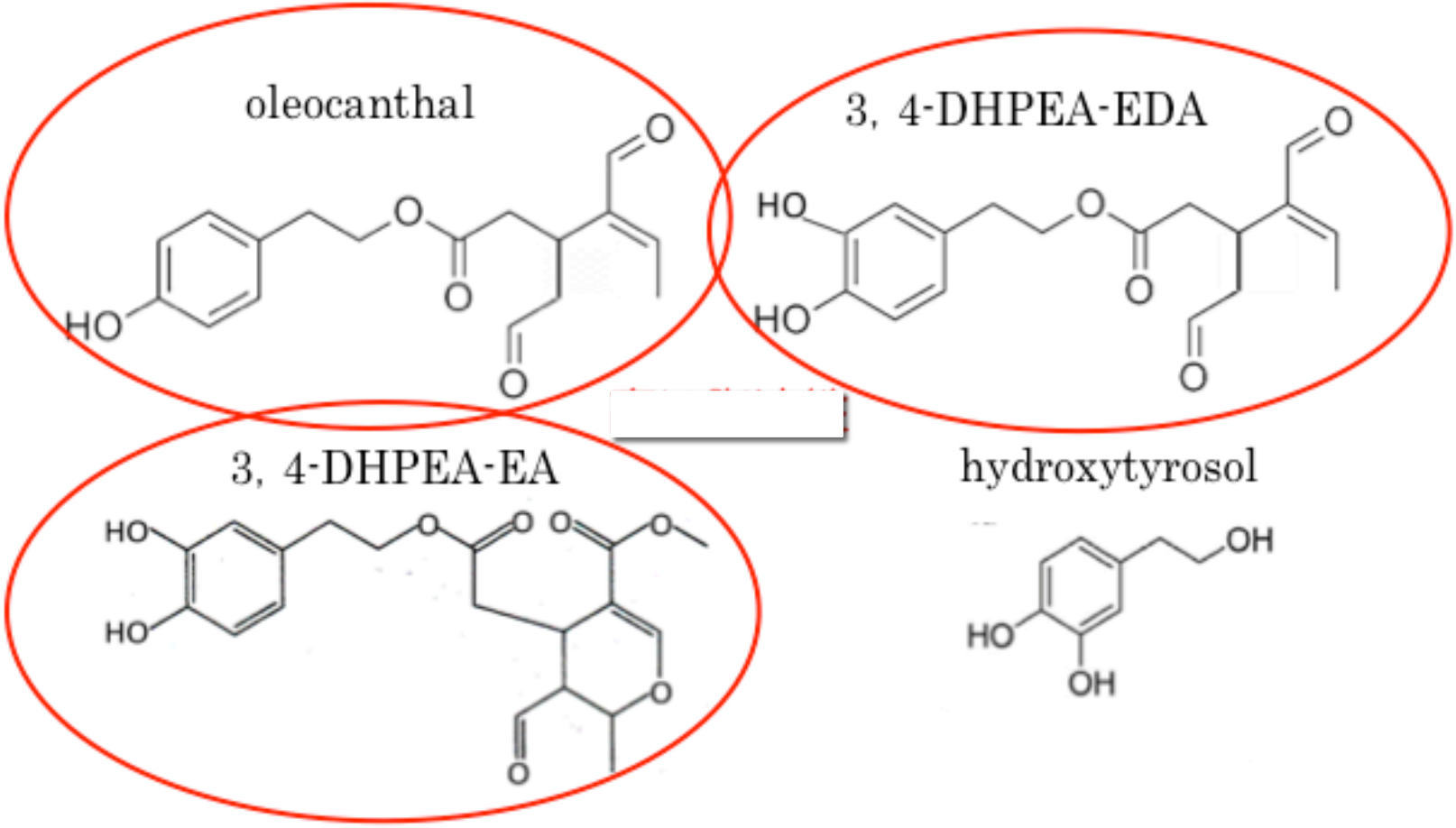


serotonine

- Anti-Allergic drug



few side effects



Metabolites in pomace of olive fruit are uniques in biological activities such as antioxidant, anti-inflammatory, anti-allergic, whitening, anti-pyroli and other activities.

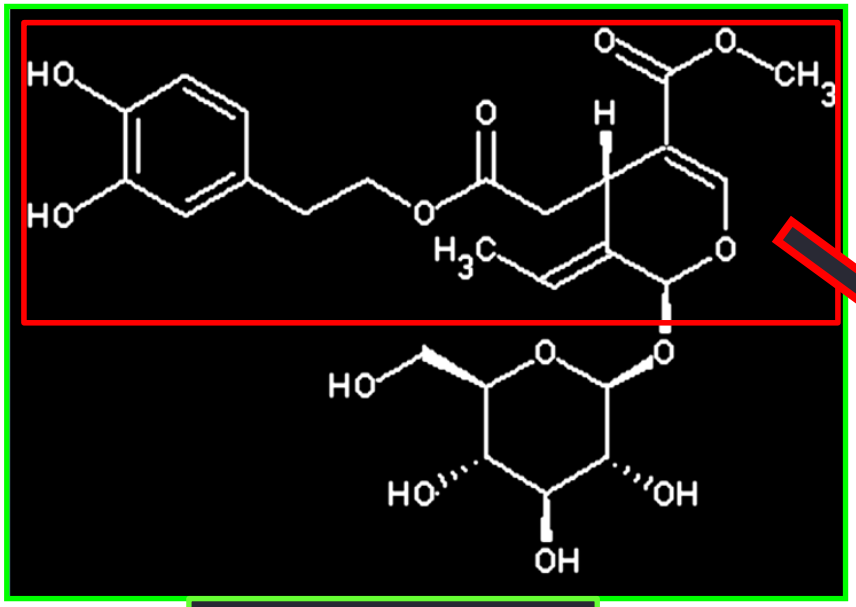
Comparison of the activities of oleuropein aglycone with crude extracts of olive pomace

Pomace extract [μg/mL]	200	400	600	800
Contents of oleuropein aglycone [μg/mL]	7.6	15.2	22.8	30.4
β-hexosaminidase Releasing rate[%]	100	70.55	36.59	28.09

Activity of pure oleuropein aglycone

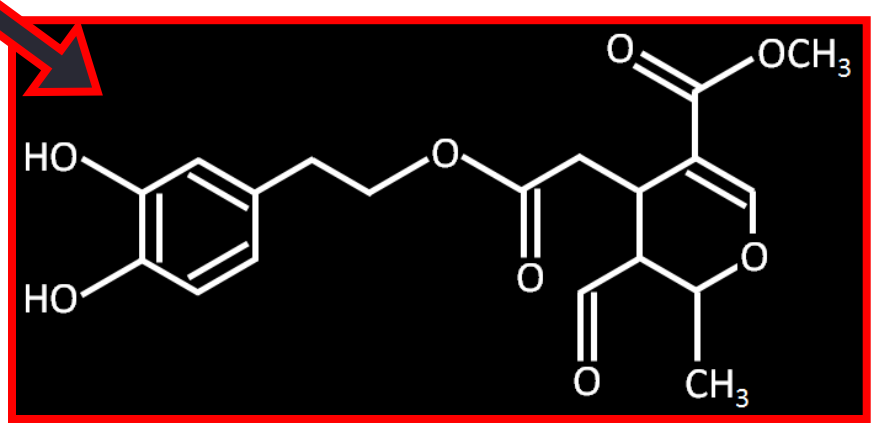
Pure Oleuropein aglycone [μg/mL]	10	20	50	100
β-hexosaminidase Releasing rate [%]	93.71	42.17	17.25	8.65

Active chemical in oive was determined to be oleuropein aglycone



Oleuropein

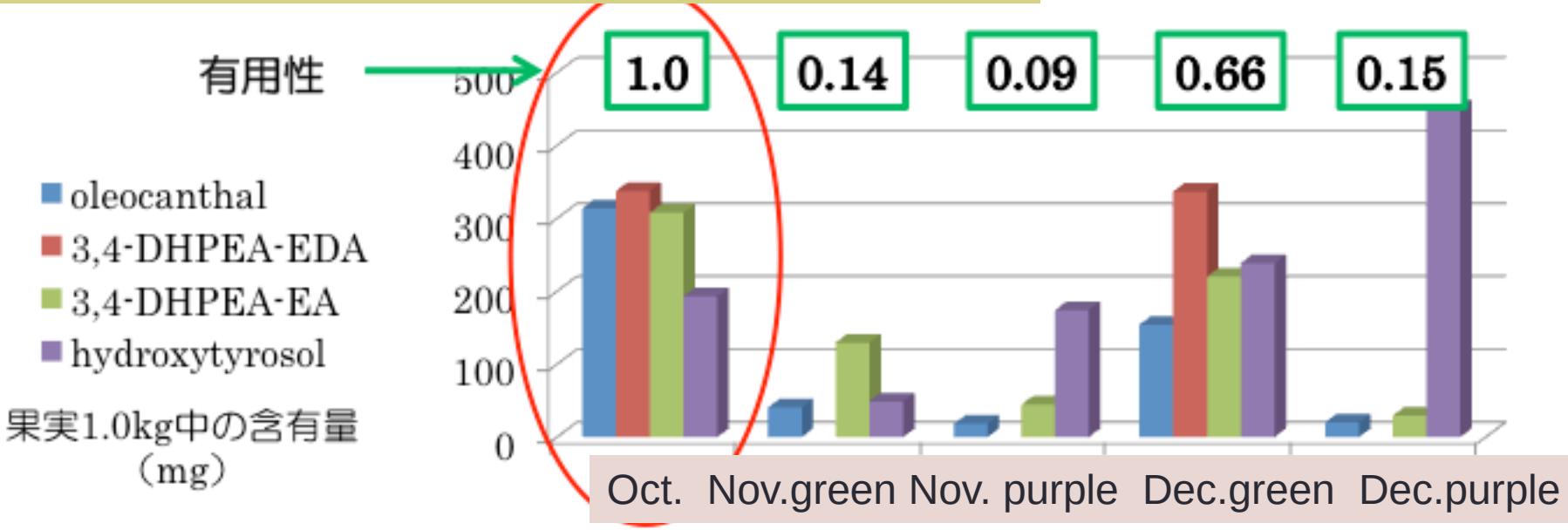
Chemical change after removing a glucose



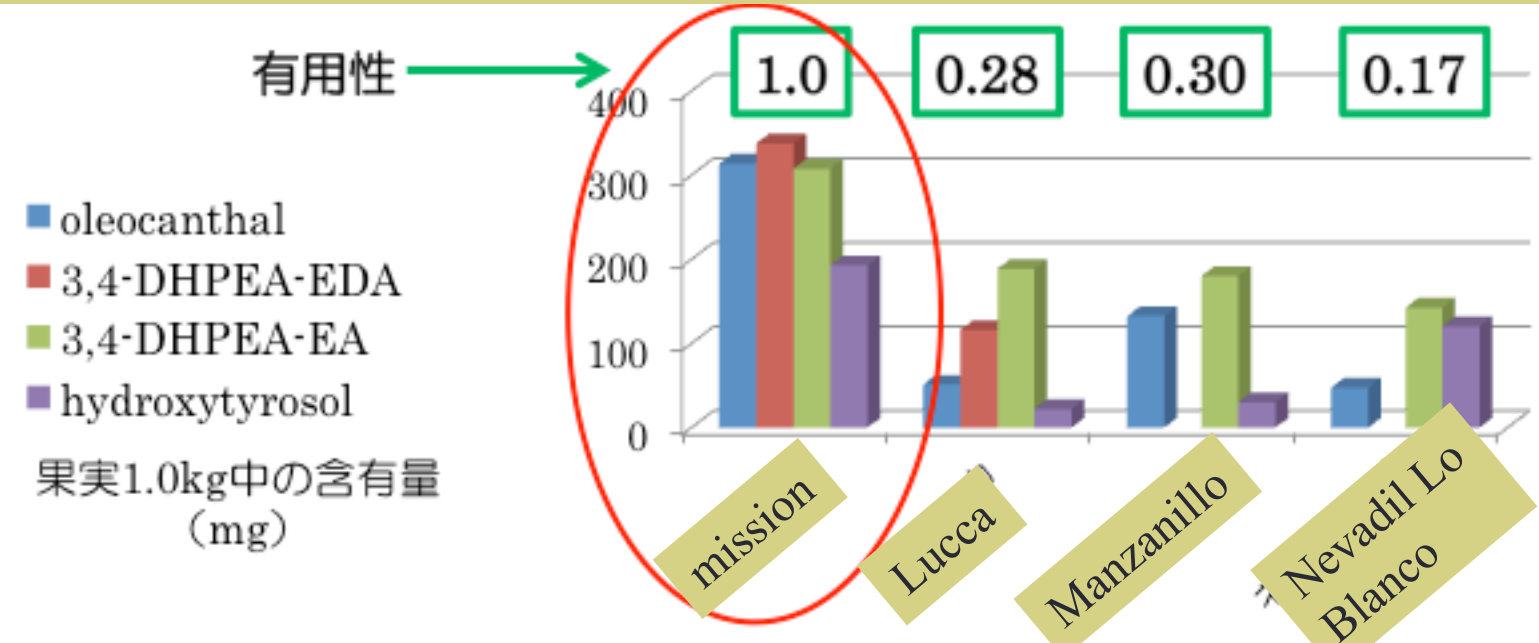
Oleuropein aglycone

Active chemical in olive pomace was proved.

Comparison of metabolites during maturation



Comparison of metabolites in the different varieties of olive plants



Meaning of chemicals in yacon

Anti-glycemic

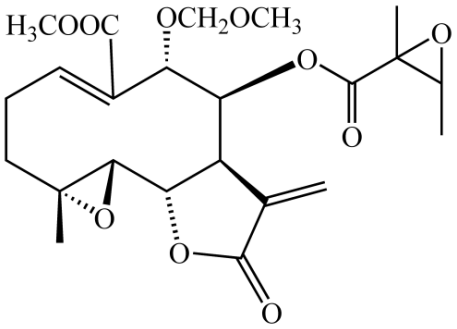
Antioxidant

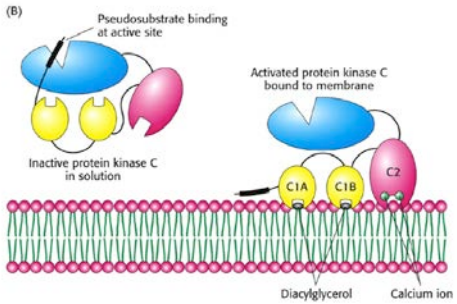
Chlorogenic acid
Caffeic acid and derivatives

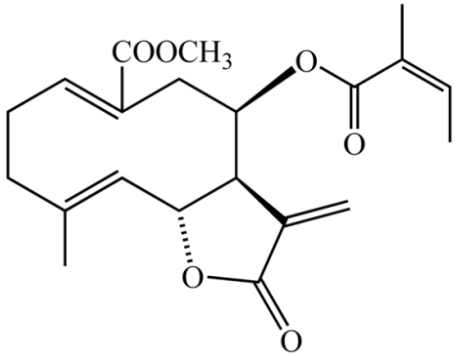
Fructooligosaccharides (FOS)

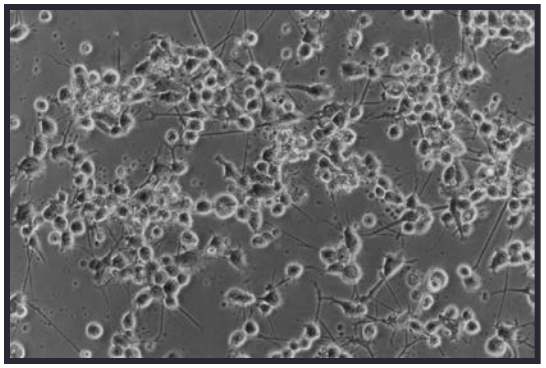
(1) Pedreschi et al 2003; (2) Genta et al 2005; (3) Lobo et al 2007; (4) Valentova et al 2004; (5) Aybar et al 2001

Anti-cancer promotion activity was tested

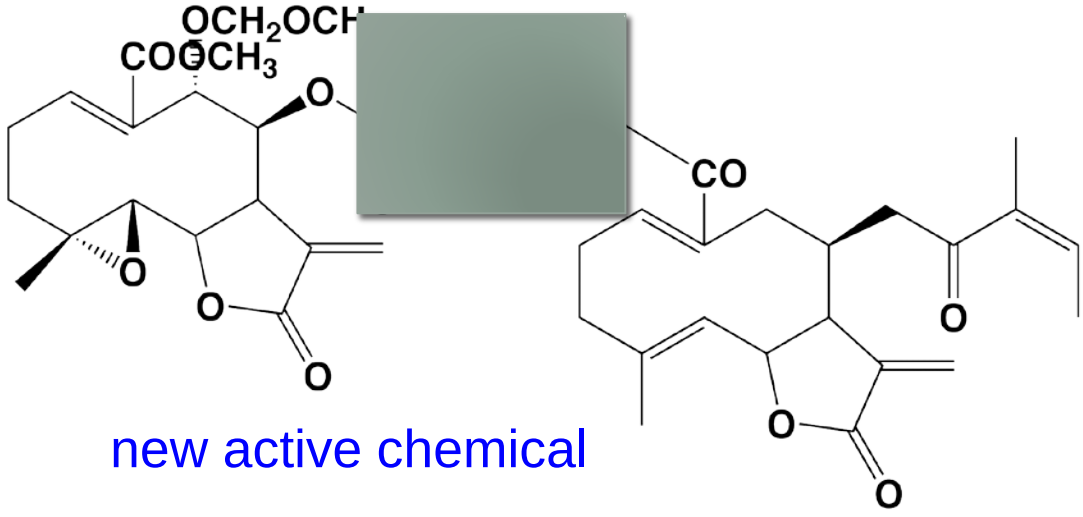








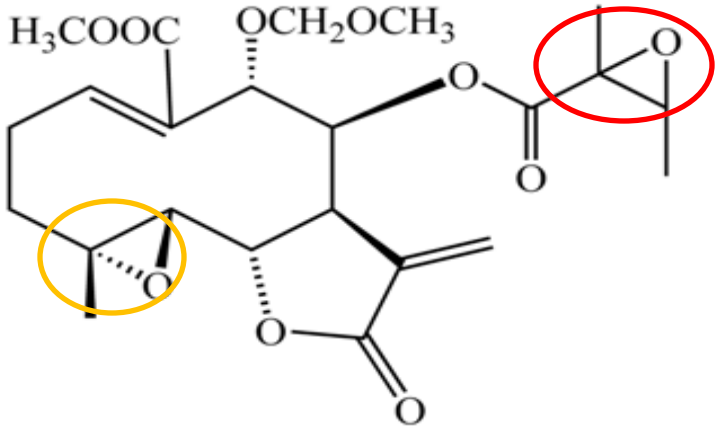
Deformation of cells



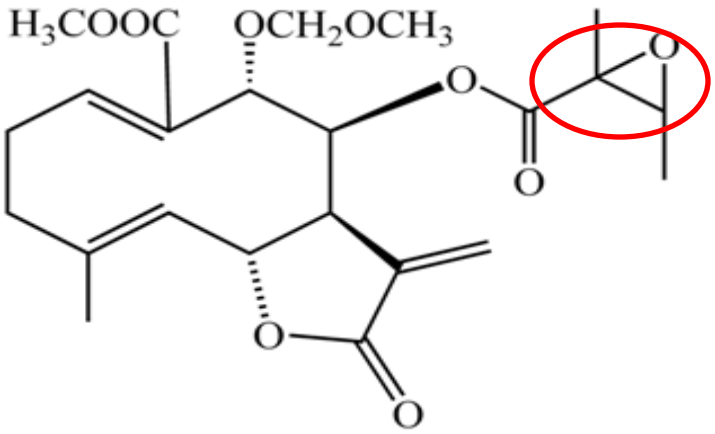
new active chemical

We would like to correlate the dose effects of SLs to anti-defomation with protection of TPA promotion of PKC binding.

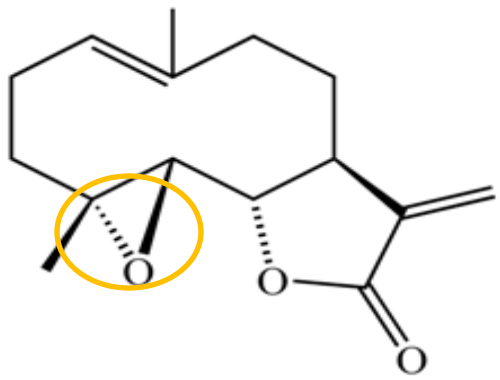
Structure – activity relationship



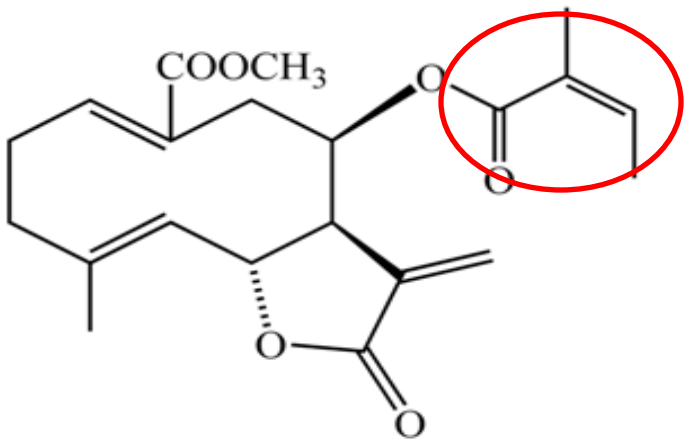
enhydrin (1)



uvedalin (2)



parthenolide (4)



sonchifolin (3)

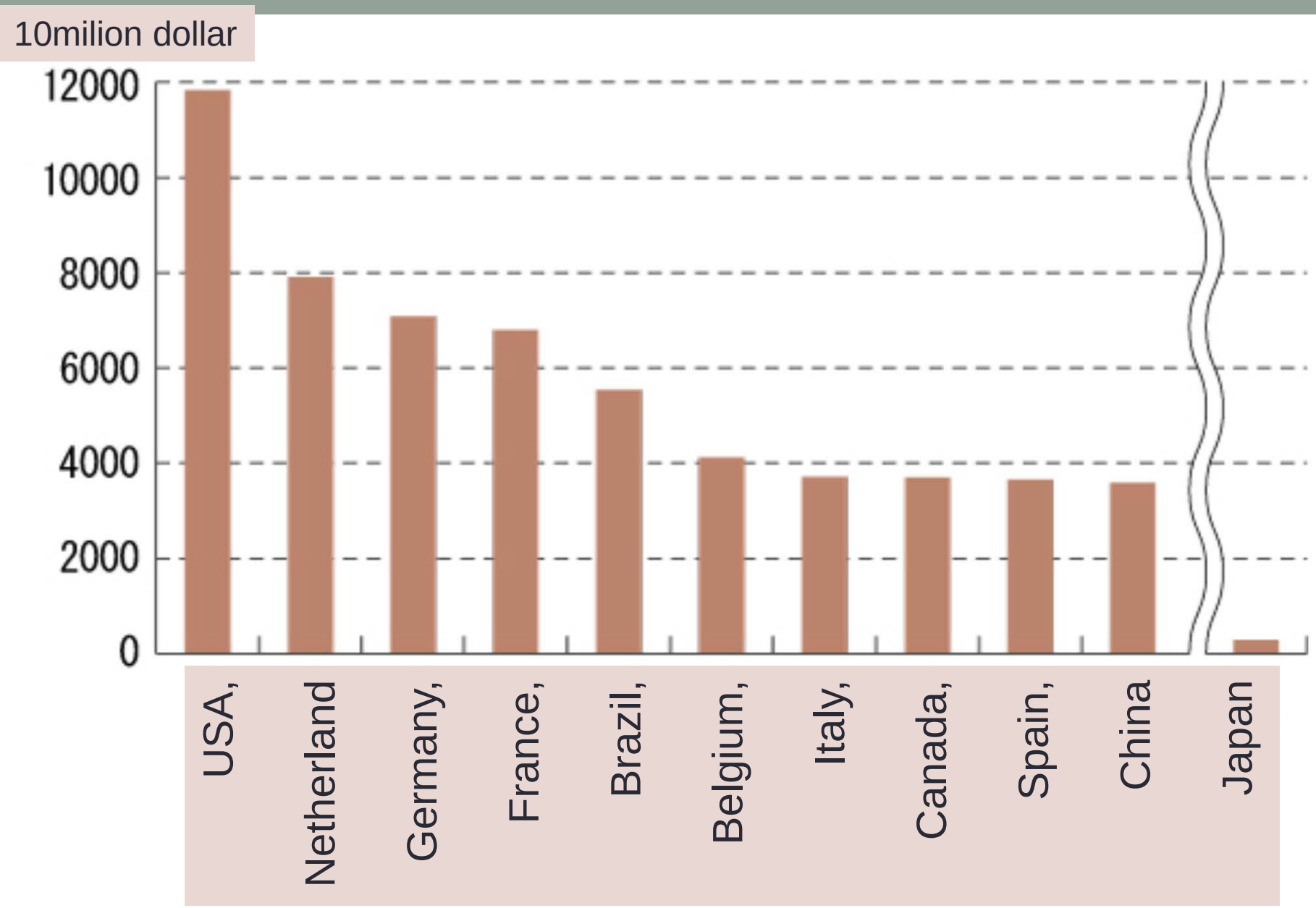
Agricultural science innovation to the local industries.

- 1) value addition to some varieties of food materials
- *Nutraceutical benefits will be added to some vaieries. Collaboration among agricultural production, health science, food processing technology will offer valuable varieties.*
- 2) wasting material changes to useful bioresources.
- *Environmentally friendly usage of food material gives economical merits and decrease CO_2 consumption.*
- 3) sextic sector of industries. *(1st sector*2nd sector*3rd sector)*
- *Agriculture, food processing and agro-business (Food system) must be considered the collaboration one another to innovate local agricultural production.*
- *Local issues will be considered well by researchers.*

Difference of food habits in countries

Cereals & Plant and fish proteins

Meat and fatty foods



Export of agricultural products by money basis (2008).

What we can do for next steps in agricultural bussiness？

- Revolution in TPP. It may give a chance to change economic trends and give more chances to agricultural production and markets.
- *Netherland is small country like Kyushu island and 46% of their land is for agricultural production. Export of agricultural products is No 2 in the world with 75.5bilion US$. Major products are tulip(12%), potato, tomato, cucumber, beef, cheese (4.3%), tabacco (4.0%) and beer (2.4%).*

- Innovation of agricultural industries will realize the revolution of Japanese style of agricultural business.


Thank you very much for your kind attention !

- Poster Session (Lobby)

<UNHAS>

- Dewi Kirono
  Current and future climate of Makassar, Indonesia
- Luis Neumann
  Streamflow projections for MAMMINASATA for 2020-2040
- Ir. Amran Achmad and Dewi Kirono
  Climate change impacts on soil erosion across MAMMINASATA
- Dewi Kirono and Samantha Stone-Jovicich
  Stakeholders' perceptions of climate change and its impact on the urban water system of Makassar, Indonesia
- Yunus Musa; Nasaruddin, and Asmiati Sahur (Faculty of Agriculture)
  Strategies For Increasing The Production And Quality Of South-Sulawesi's Cacao In Indonesia
- Yunus Musa, Nasaruddin, and Asmiati Sahur (Faculty of Agriculture)
  Effectiveness Inoculation of *A. Chroococcum* and *Arbuscular Mycorrhizal* Fungi on Growth and Nutrient Availability on Immature Cocoa Clonal

<Ehime University>

- Takuya Sugahara (Faculty of Agriculture)
  Immunostimulatory Activity of Bengkoang (*Pachyrhizus erosus* L. Urban) Fiber Extracts on Lymphocytes and Macrophages
- Takeshi Miura (Faculty of Agriculture)
  Newly-developed technique for producing pearls using mantle fragments of *Pinctada margaritifera* and *Pteria Penguin* in hyposensitized Akoya pearl oyster, *Pinctada fucata*
- Kohtaro Takayama (Faculty of Agriculture)
  Plant diagnosis with chlorophyll fluorescence imaging robot
  —Mapping of photosynthetic acivitity of tomato plants in greenhouse—
- Tetsuya Shimamura, Erna S. Poesie, Ikuo Ninomiya (Faculty of Agriculture)
  Species Composition and Phylogenetic Diversity of Tropical Peat SwampForests, SE Asia
- Abidin Zaenal (SUIJI Promotion Office)
  Natural and Synthetic of Aluminosilicate Nano-particles and its Applications for Adsorbent Material.

< Kagawa University>

- Hisashi Kato (Faculty of Agriculture)
  Allelopathic substanses from tropical plants
- Takeshi Katayama (Faculty of Agriculture)
  Chemistry and biochemistry of aromatic components in woody biomass
- Ikuo Kataoka (Faculty of Agriculture)
  Breeding of Kiwifruit Cultivars Adapting to Warm Climate by Utilizing Wild Resources
- Toshisada Suzuki (Faculty of Agriculture)
  Chemical constituents from *Jatropha curcas*, and their antioxidant activities

<Kochi University>

- Yoshinori Yamamoto, Rembon F. S., Pasolon B. Y. and Akira Miyazaki (Faculty of Agriculture)
  Researches on the Upland Rice in Southeast Sulawesi Province, Indonesia
- Yoshinori Yamamoto (Faculty of Agriculture)
  Starch Productivity of Sago Palm (*Metroxylon sagu* Rottb.) in Indonesia.
- Akira Miyazaki (Faculty of Agriculture)
  High temperature effect on ripening and kernel quality in rice cultivars
- Amol Dahal, Shunsuke Hori, Haruki Nakazawa, Kazumitsu Onishi, Toshio Kawano, and Masayuki Murai (Faculty of Agriculture)
  Inhibiting Gene for a Late-heading Gene Responsible for Photoperiod Sensitivity in Rice (*Oryza sativa)*
- Kazutsugu Matsukawa
  New methods for genetic preservation of cattle

Student Forum

Student Forum consisted of two sessions. The first session was on the progress report of SUIJI Service Learning Program (SLP) 2013 in Japan. This program was carried out in five field sites of Ehime, Kagawa, and Kochi prefectures. In this session, each of five groups made the presentation on their activities, experiences, findings, and goals.

The second session treated the SUIJI students' networking to develop the program in the future. Under senior SUIJI students' moderating, SLP 2013 students discussed how to build the continuous relationship between the Japanese students and the Indonesian, the senior and the junior, and the SLP and the field site. Then they declared their active plans and goals towards the next SUIJI program with the result of discussion, and signed "Kochi Active Program".

Students prepare each group's presentation.

Students' presentation (1).

Discussion among each group about SUIJI student network.

Discussing how to build SUIJI students' network.

Representative students of five field sites sign to "Kochi Active Program".

Kochi Active Program

During : The SUIJI International Symposium
Date : Aug 29 2013
Venue : Kochi university (Southern City Hotel)

Students from six universities (Ehime University, Kagawa University, Kochi University, Gadjah Mada University, Bogor Agricultural University and Hasanuddin University) which are located in Japan and Indonesia participate in the SUIJI International Symposium.

※ Activities ; establishing student organization

1. We will establish student organizations for maintaining relations and corporation with local people. We will try to understand the needs of the local people and discuss what we can do for the sites.

2. We will manage Facebook accounts that cover all the information regarding the site, from the current and new members.

3. Members will visit to each site periodically, perhaps once a month.

4. We will conduct seminars among JDP and SLP to share all information regarding the site from every major subject students.

Ehime University	Gadjah Mada University
Name Nako Kobayashi	Name Mesalia Kristia
Kagawa University	Bogor Agricultural university
Name Kana Tanaka	Name Silvia Sari Busnita
Kochi University	Hassanudin University
Name Yasuaki Mizoguchi	Name Dwi Ratna Sari

Rector Forum:

Discussion on strategy of partnership between the university and the local community, placement of SUIJI

- Greeting Speech
  - Koji Kitayama (Higher Education Bureau, Ministry of Education, Culture, Sports, Science and Technology)
  - M. Iqbal Djawad (Educational & Culture Attaché, Indonesian Embassy in Tokyo)

- University Presentation
  - Sri Raharjo (Deputy Head, Research Division, Institute of Research and Community Service, Gadjah Mada University)
  - Herry Suhardiyanto (Rector , Bogor Agricultural University)
  - Dadang Suriamihardja (Vice Rector , Hasanuddin University)
  - Yasunobu Yanagisawa (President , Ehime University)
  - Seigo Nagao (President , Kagawa University)
  - Hiroshi Wakiguchi (President , Kochi University)

文部科学省高等教育局付　北山　浩士 氏　挨拶

「第３回 SUIJI セミナー高知大会」
（Six University Initiative Japan Indonesia）
学長フォーラム冒頭挨拶
Greetings at the Rector Forum in the Six University Initiative Japan Indonesia, the 3rd SUIJI Seminar in Kochi

ボゴール農業大学　Herry Suhardiyanto 学長、ハサヌディン大学　Dadang Suriamihardja 副学長、ガジャマダ大学 Sri Raharjo 教授をはじめとしてインドネシアからお越しの皆様方、日本へようこそお越しくださいました。
President Herry Suhardiyanto of Bogor Agricultural University, Vice President Dadang Suriamihardja of Hasanuddin University, Professor Sri Raharjo of Gadjah Mada University, and all other honorable guests from Indonesia, please accept my heartiest welcome to Japan.

「第３回 SUIJI セミナー高知大会」（Six University Initiative Japan Indonesia）の開催に際して一言御挨拶申し上げます。
May I say a few words on the occasion of the Third “Six University Initiative Japan Indonesia”?

第 1 回の愛媛大学、第 2 回のボゴール農業大学に続き、今回、SUIJI の第 3 回のセミナーが、このように盛大にここ高知において開催されることをお喜び申し上げます。会議の主催者である脇口　宏学長はじめ高知大学の皆様のご尽力に敬意を表します。
I am delighted that the Third Conference of “Six University Initiative Japan Indonesia” takes place here in Kochi after the First at Ehime University and the Second at Bogor Agricultural University. I would like to pay my sincerest respect to President Hiroshi Wakiguchi, host of the Seminar and all concerned at Kochi University who have contributed so much to the realization of the Seminar.

日本とインドネシアは、政治・経済・文化等の様々な分野において関係を緊密化していますが、高等教育の分野においても同様です。文部科学省としても日本と ASEAN と日本の大学交流を推進するため、2011 年より「大学の世界展開力強化事業」により ASEAN との交流プログラムに対して支援（※）を行っており、本年からは AIMS プログラムという ASEAN 域内の学生交流プログラムにも参加しています。
※　2011 年に 3 プログラム、2012 年に 14 プログラム開始
Japan and Indonesia are building closer relations in politics, economy, culture and various other fields, and this is also true of university education. The Ministry of Education, Culture, Sports, Science and Technology in Japan is promoting

exchanges between Japanese universities and ASEAN nations and, to that end, we are supporting exchange programs with ASEAN nations through the “Re-Inventing Japan” Project. Starting this academic year, we are participating in the student exchange program within ASEAN called AIMS.

この「SUIJI」による「日本・インドネシアの農村漁村で展開する６大学協働サービスラーニング・プログラム」は、2012 年より支援対象です。大学のグローバル化は現在、日本の高等教育の大きな課題となっており、文部科学省としても「大学の世界展開力強化事業」や「グローバル３０事業」、「グローバル人材育成推進事業」などにより大学を支援しています。この「SUIJI」が文部科学省事業を活用して大学のグローバル化の実践にどのようにつなげていただいているのか、皆様からのご発表を楽しみにしております。

本日はよろしくお願いします。

We have been providing support for the Japan-Indonesia Six-University Collaboration Service Learning Program for Farming and Fishing Villages since 2012. University globalization is a big issue for higher education in Japan. The Ministry of Education, Culture, Sports, Science and Technology has been supporting the “Re-Inventing Japan” Project, the “Global 30” Project, the “Project for Promotion of Global Human Resource Development”, and so on. I am looking forward to listening to your presentations on how SUIJI will utilize these projects and connect them to the practice of university globalization.

Thank you very much.

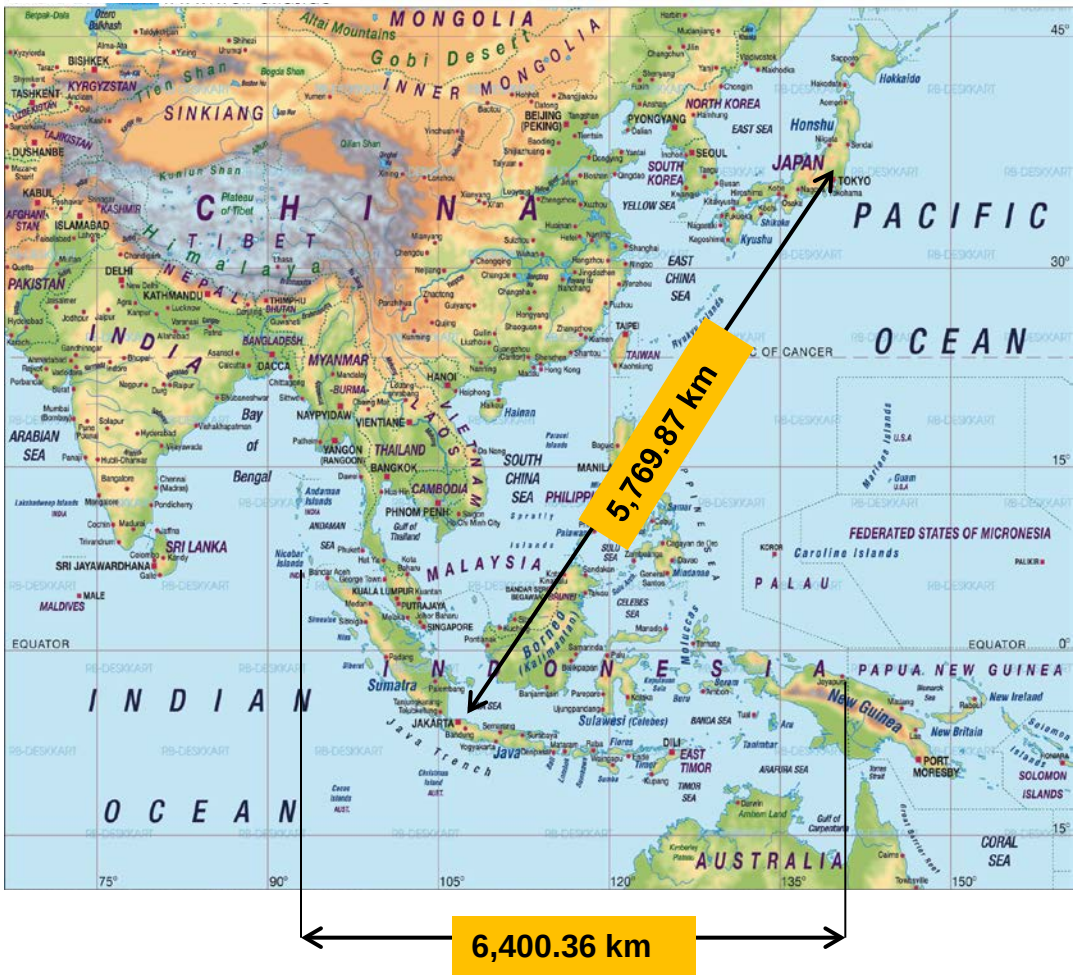
Partnership with the local community and trend of service learning

ACADEMIC MOBILITY:

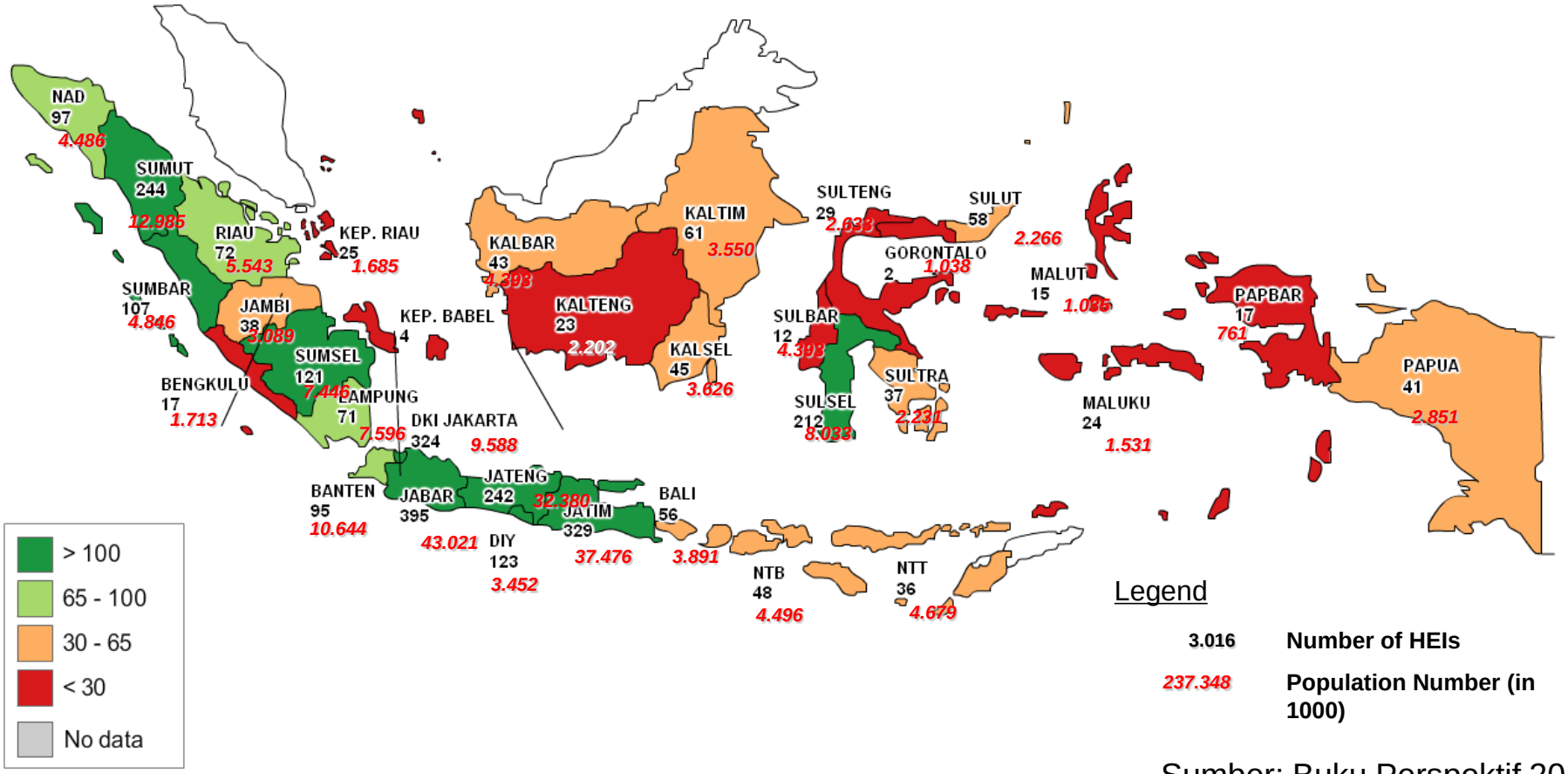
The Premise of Globalization

Directorate for Human Resource Development
Directorate General of Higher Education
The Ministry of Education and Culture of Indonesia
2013

Geography

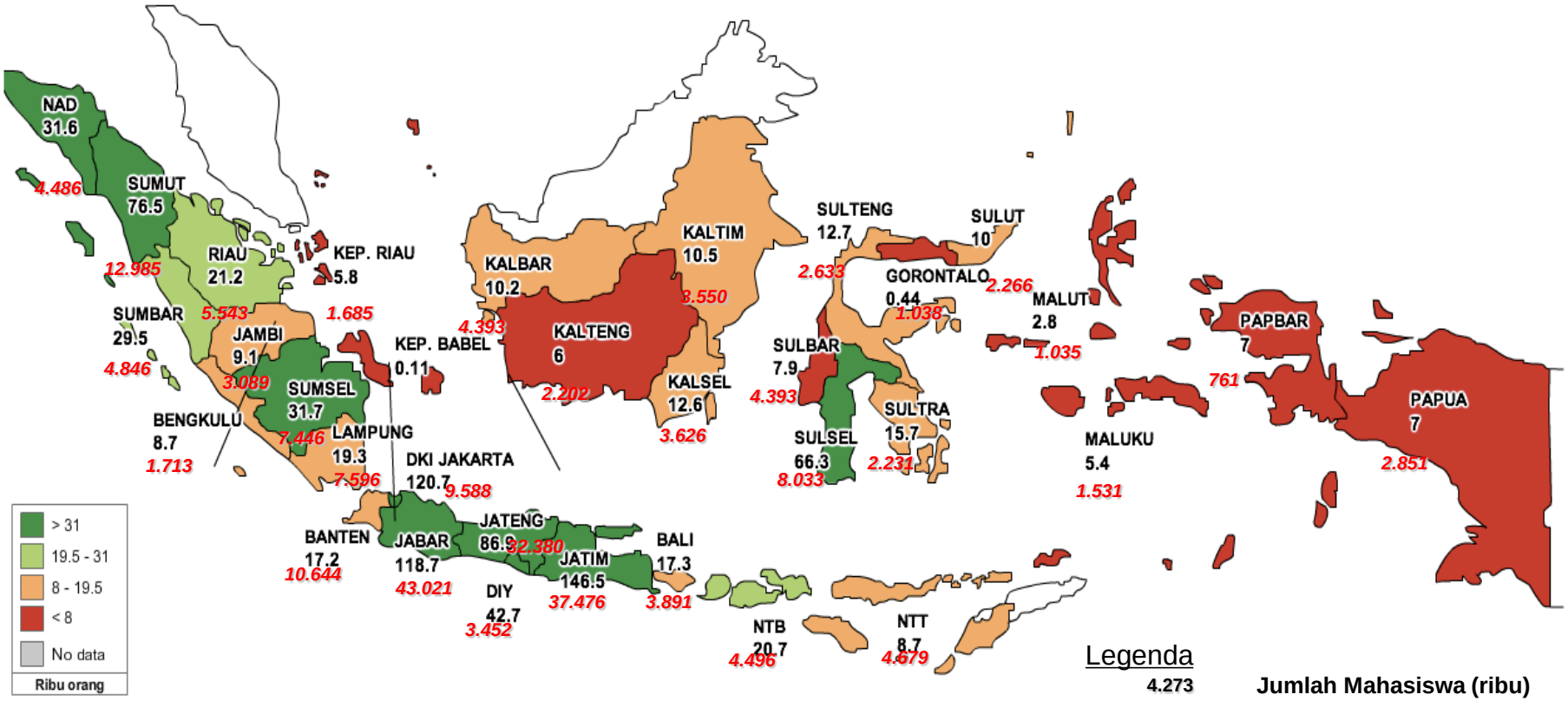

5,769.87 km
6,400.36 km
MONGOLIA
CHINA
INDIA
INDONESIA
PACIFIC OCEAN
INDIAN OCEAN
AUSTRALIA
JAPAN
PHILIPPINES
MALAYSIA
THAILAND
MYANMAR
PAPUA NEW GUINEA
FEDERATED STATES OF MICRONESIA
PALAU
EQUATOR
TROPIC OF CANCER

The Number of HEIs in Indonesia in 2009



Sumber: Buku Perspektif 2010)

Number of Students and Total Population



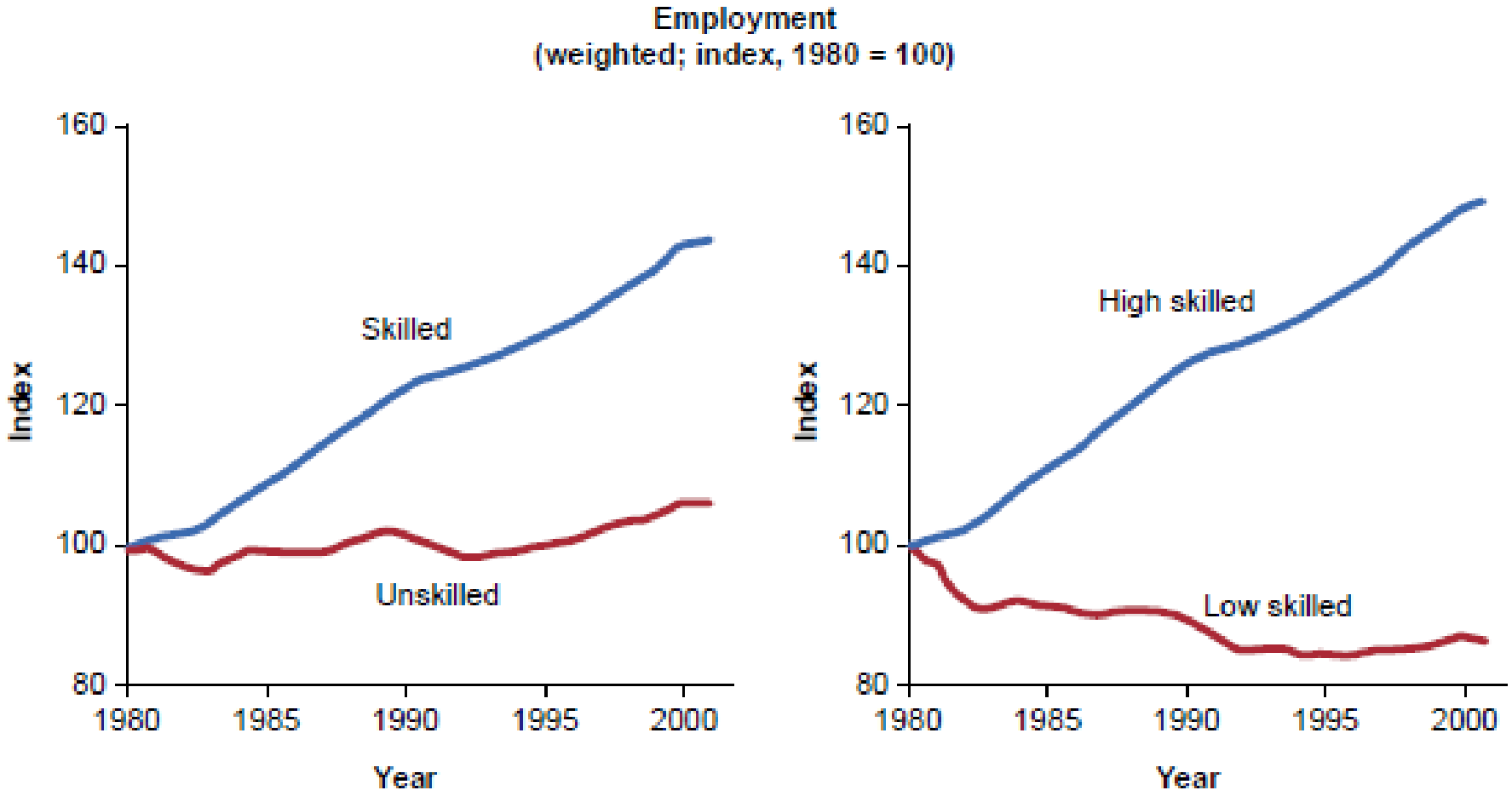
Legenda

4.273 **Jumlah Mahasiswa (ribu)**

237.348 **Jumlah Penduduk (ribu jiwa)**

Sumber: PDPT, 2011

Demand for Skilled and Unskilled Workers, reflected in employment rates, 1980-2000



Sumber: *Yidan Wang, 2012.* Education in a Changing World: Flexibility, Skills, and Employability

Academic Mobility

Academic mobility is referred to as the movement of students to obtain higher degrees or faculty members to provide lectures, from one place to another or from one country to a different one

Academic Mobility

Academic Mobility is related to:

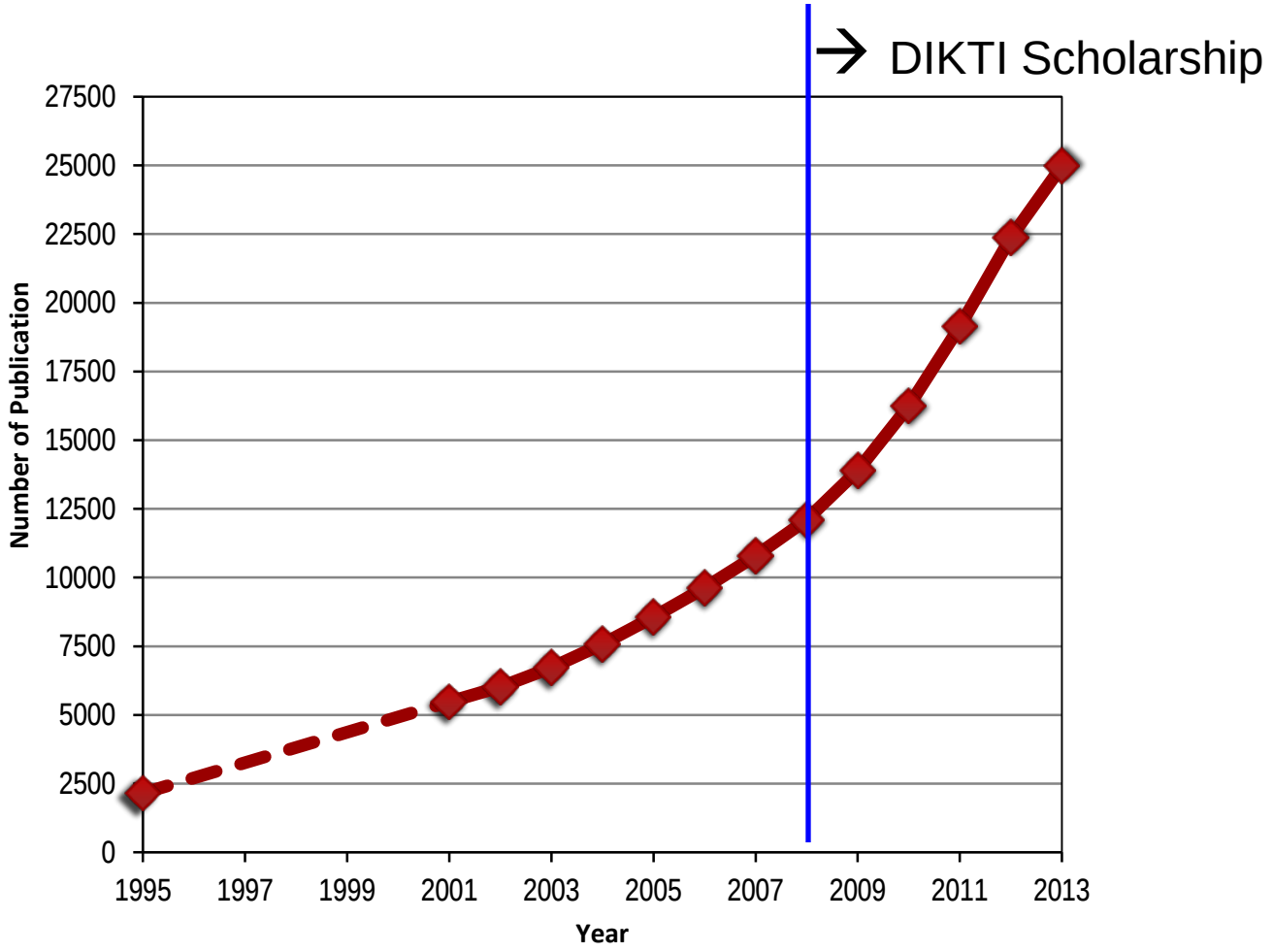
- Proactive attitude for personal development
- Perceived a greater potential knowledge gain
- Perceived lower language barrier

Bosman et al. (2007).

SCOPUS


Scopus
The largest abstract and citation database of peer-reviewed literature.

Number of Publication in SCOPUS from Indonesia (1995-2013)



In Indonesia:

Academic mobility:

- **Prior Indonesian independence (1945)**
- **From independence to end of 20th century**
- **In the 21st century**

Indonesian Academic Mobility

Period	Initiatives	Source of Funding
Prior Independence (1945)	Individual	Individual, Family
From 1945 - 2000	Individual & Institutions	Foreign Grants or Foreign Loans
From 2000 - present	Institutions	National budget

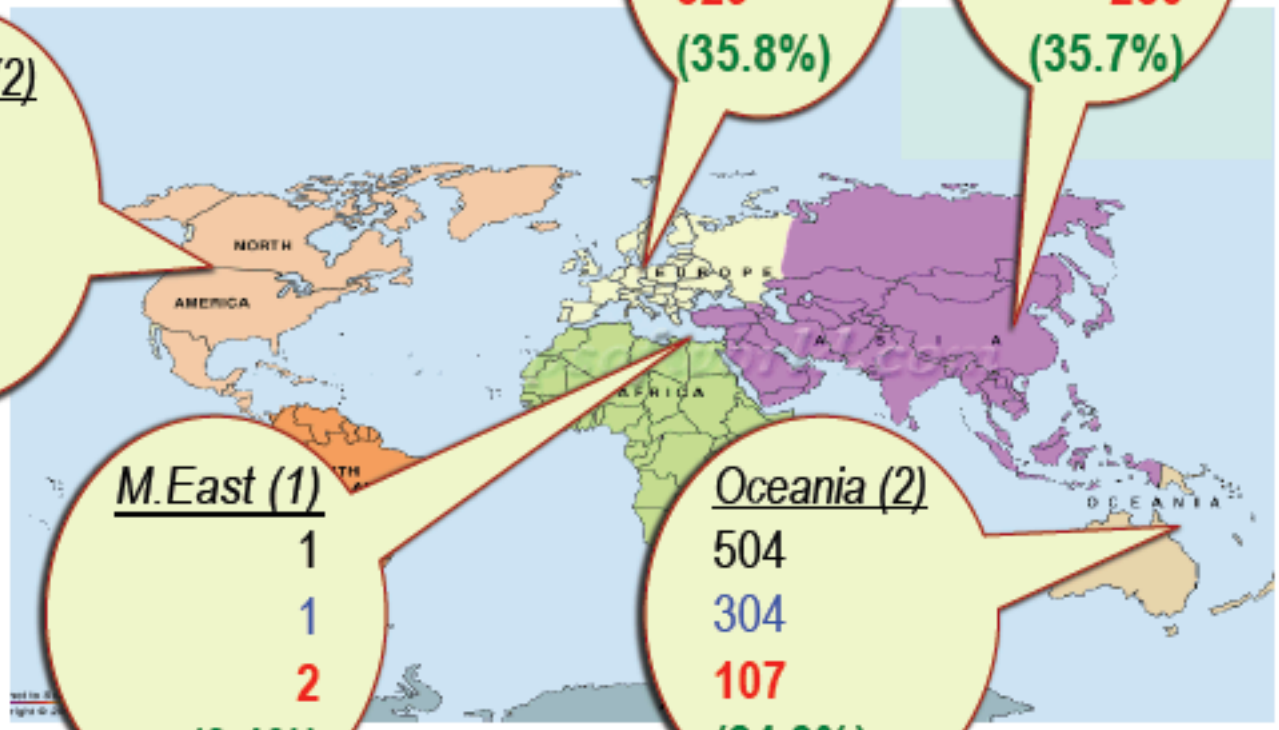
DIKTI Scholarships

1. Graduate Degree Scholarships (Long-term)
   a. In country (target: 7000)
   b. Over-seas (target: 800)
2. Non-Degree Fellowships (Short-term)
   a. In country (target: 1000)
   b. Over-seas (target: 400)

Dikti In-country Scholarships (2008-2012)

Type of Scholarship	2008	2009	2010	2011	2012	Total
BPPS	2448	6452	5629	5252	3273	**23054**
PPDS	0	0	0	862	0	**862**
KTL	0	1	2	47	39	**89**
PMRI	0	0	0	29	0	**29**
Beasiswa Unggulan	0	0	0	995	2338	**3333**
Pra S2	0	0	0	0	496	**496**
Total	**2448**	**6453**	**5631**	**7185**	**6146**	**27864**

DIKTI Overseas Scholarship (2008-2012) Total: 3760



EU (18)
510
506
329
(35.8%)

Asia (10)
651
441
250
(35.7%)

N.Ame(2)
48
69
37
(4.1%)

M.East (1)
1
1
2
(0.1%)

Oceania (2)
504
304
107
(24.3%)

Year:

2008-09
2010-11
2012

Dikti Short Term Fellowship (2008-2011)

Jenis	2008	2009	2010	2011	Total
SAME (Scheme for Academic Mobility and Exchange)		282	198	134	614
EIP (Enhancement of International Publication	607	320	290	301	1518

Closing Remark

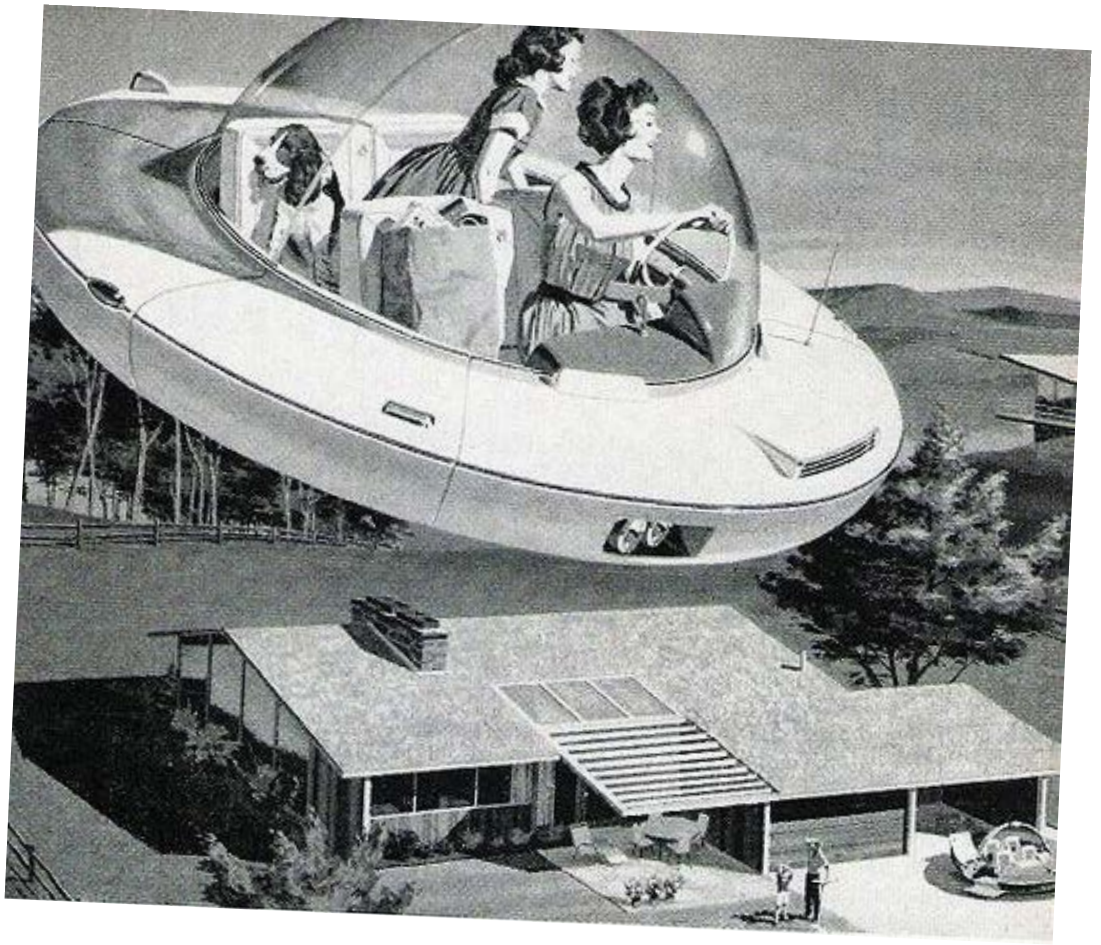
- **Knowledge:**

→ Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.

(Kofi Annan, former UN Secretary General)

“The future is already here – it’s just unevenly distributed.”

William Gibson



Terima Kasih

The 3rd SUIJI Seminar in Kochi Rector Forum: Enhancing Partnership Between University and Local Community

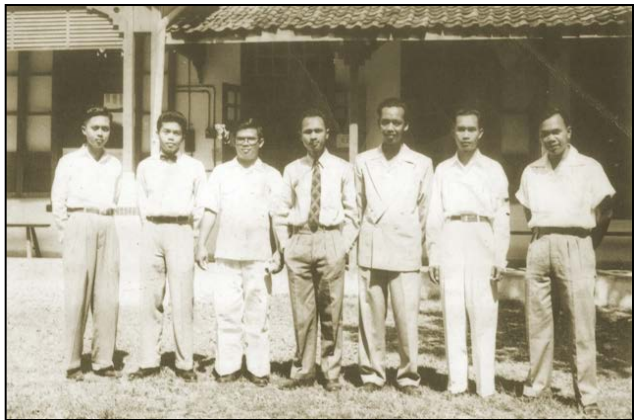
Sri Raharjo
Universitas Gadjah Mada
August 28-29, 2013

Student Community Service Education

Leadership in Student Community Service (KKN)

- *Go to the People.*
- *Live among them, Love them, Learn from them.*
- *Start from where they are, Work with them, Build on what they have.*
- *But with the best leaders,*
- *When the task is accomplished, The work completed,*
- *The people all remark: “We have done it ourselves”.*

In its early days (1951-1962), Universitas Gadjah Mada sent volunteer students to teach and set up a high school outside Java through a project named as PTM (*Pengerahan Tenaga Mahasiswa*, Students Mobilization). UGM had sent 1218 students and helping the nation to set up 109 high school outside Java Island.

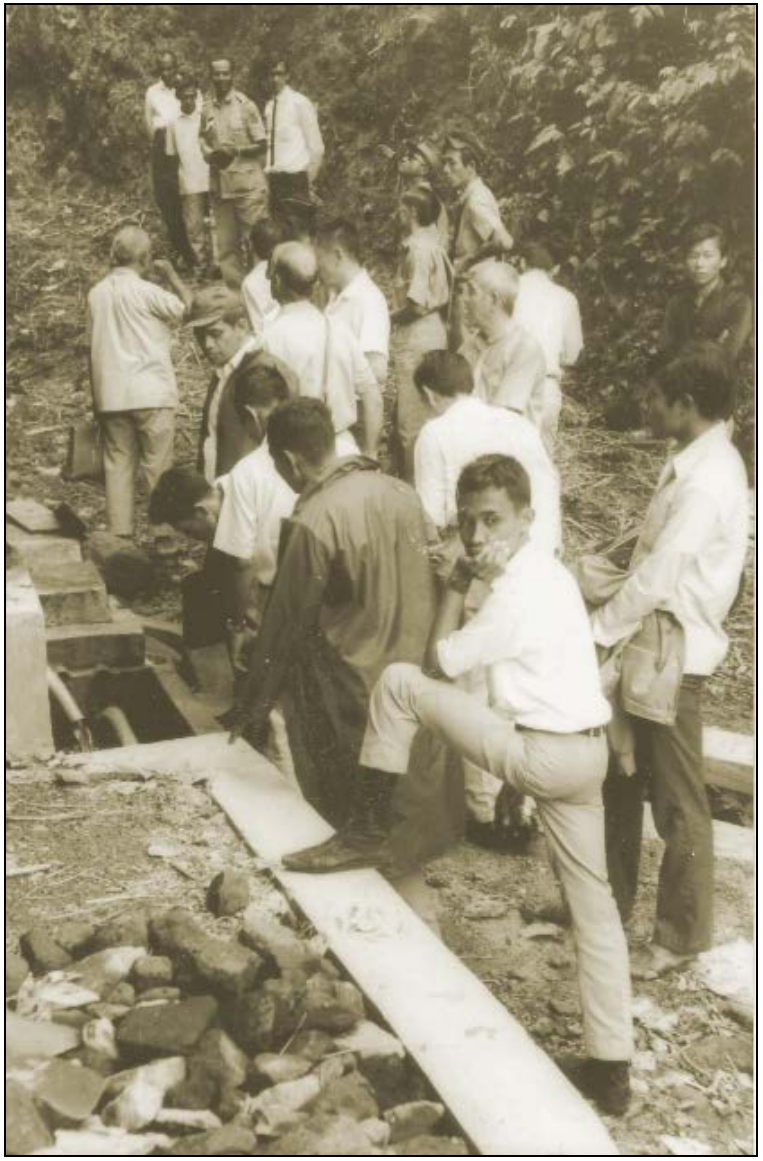


Wanagama, Universitas Gadjah Mada Forest, 600 Ha of dry land (1963)

Wanagama, Universitas Gadjah Mada Forest, 600 Ha as Educational Forest (2013)

- **In 1961-1964 GMU students plunge into the affected areas to eradicate**
  - **smallpox outbreak in Wonogiri,**
  - **dysentery outbreak in Pekalongan,**
  - **vaccination to 14,092 people in Yogyakarta,**
  - **tackle disease outbreaks in Lampung,**
  - **helping helping victims of Mount Agung eruption in Bali,**
  - **helping famine victims and building water reservoirs in Gunung Kidul.**

Three villages in the foot of Mt. Merapi always face clean water shortages. Springs are 4km away from residential areas, and in the abyss as deep as 150 m. Efforts to build a water pipeline has been pioneered in 1961.



Underground Piping Construction

On Ground Piping Construction

Power Plants for Water Raising

Electrical generator with 55kVA using biofuel

Solar panel

Water Reservoirs

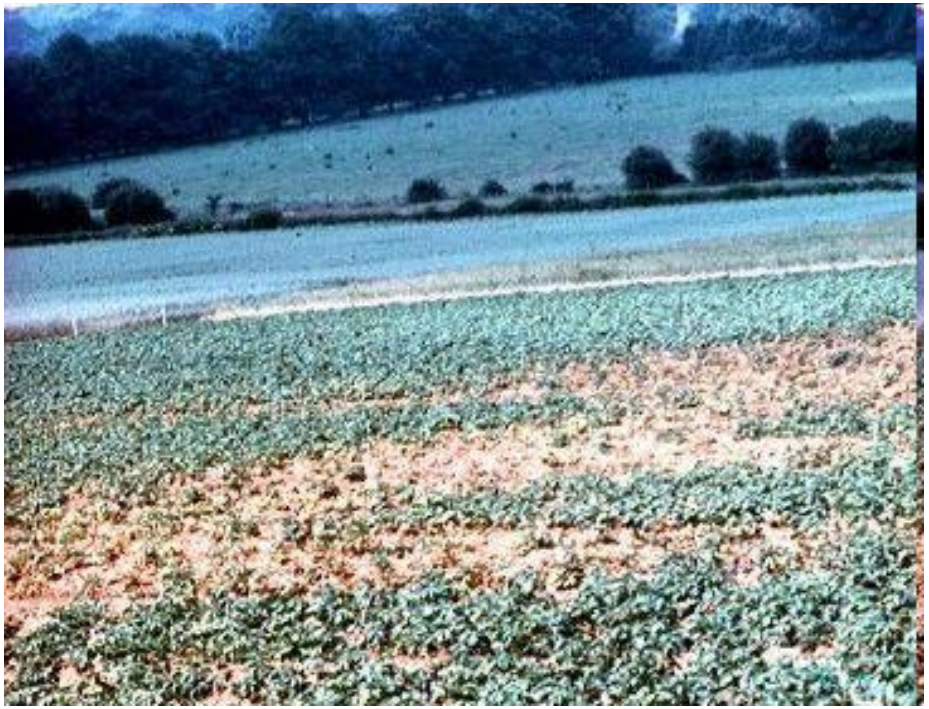
- **Reservoir capacity is 60m^3**
- **Distribution to 7 villages are supported by 26 outlet points**

(Perwira, 2007)

Students trained the community on how to reduce the risk of natural disaster through Land Slide Early Warning Program

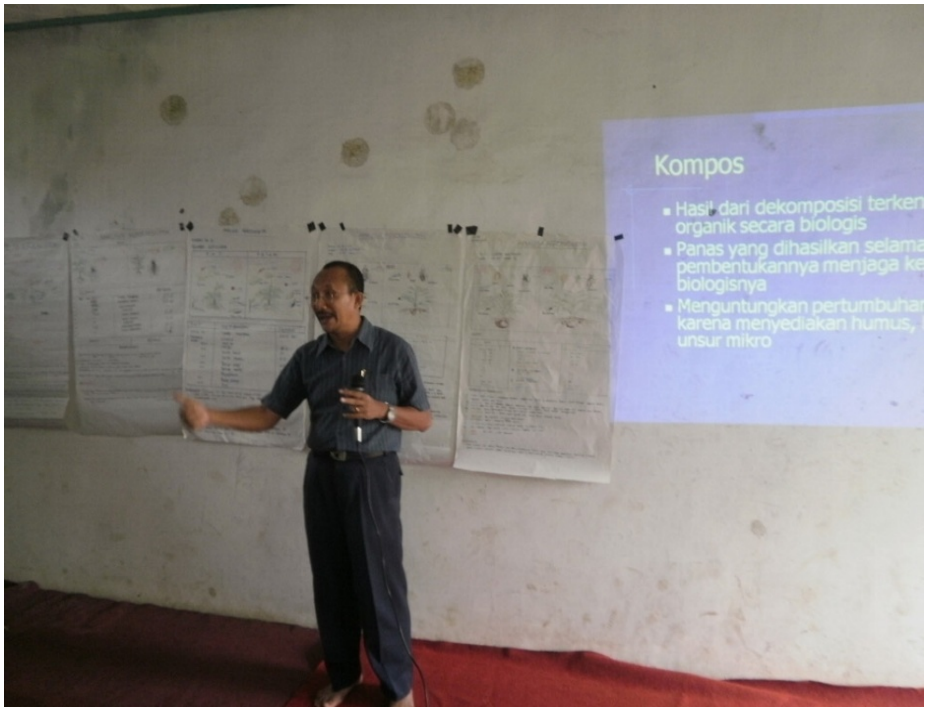
Bridging the university and its community

Researchers in UGM are studying parasitic fungi on yellow cyst nematodes



Potato field devastated by yellow cyst nematodes

Disseminate knowledge and technologies to the people



Dissemination of biological control technology for yellow cyst nematodes to potato farmers

Illiteracy Eradication Using Mother Tongue Languages

Main Activity	To eradicate illiteracy using moduls with mother tongue languages.
Year	2006 and 2007, up to now
Location	Jawa, Sulawesi, Bali, and Madura Islands
Partner	Indonesian Ministry of National Education
Budget	US $ 72,193 (2006) US $ 464,599 (2007)
Input	490 students and 2509 participants with 86,3% success ratio (2006) 815 students and 12.000 participants with 87,5% success ratio (2007)
Output	Reduced of illiteracy rate

Small Medium Enterprises Empowerment

Main Activity	To empower small and medium enterprises on finance management, business plan, awareness of environmental safety
Year	1998 up to now
Location	Yogyakarta Province
Partner	Bank BNI 46 Branch UGM Yogyakarta, Kaltim Prima Coal (KPC)
Budget	In 2006 US $ 213,904 (capital credit investment)
Input	700 students
Output	In 2006 capital US $ 196,792 for 84 SME, with NPL : 0
Sustainability	Collaborations with local governments and industries

Coastal Area Plantting

Main Activity	Plantting of coastal area to prevent coastal abrasion
Year	2006 up to now
Location	Kebumen District, Central Jawa
Partner	Local Government, Ministry of Forestry, Office of Forestry of Kebumen District, Local Community
Output	Changing from no vegetation and sandy area to become green coastal area in Kebumen District with the height of the plants ranging from 1-4 meter.
Sustainability	Establishing and training local organization to maintain green areas.

UGM strategy

- 18 Faculties, 2400 faculty members, 6000 students per year to be deployed.
- Setting priority themes/focus
- Identified priority areas
- Facilitating resources
- Enabling staff and students
- Administrating and controlling

Thank You

Service Learning Program

- Menghadiri pertemuan SUIJI di Bali (March, 2013)
- Mengumumkan dengan memasang poster
- Menyediakan Application form
- Menerima isian application form
- Melakukan seleksi (desk and interview)
- Mengumumkan yang lolos seleksi
- Meberikan pembekalan peserta
- Mengurus berbagai perijinan (misal:Visa, ijin dari KKN, surat rekomendasi)
- Menyampaikan daftar peserta SLP ke SUIJI di Jepang
- Mendapatkan Invitation Letter bagi peserta
- Menyiapkan dokumen keberangkatan dan ansuransi
- Mengirim mahasiswa peserta SLP ke Jepang
- Memonitor pelaksanaan SLP
- Penyelesaian transfer kredit peserta SLP

Persiapan JDP (Indonesia ke Jepang)

- Mengumumkan program JDP ke mahasiswa S2
- Menseleksi mahasiswa yang telah mendapat calon pembimbing (professor) di Jepang
- Memfasilitasi perijinan (status mhs aktif, bebas SPP di UGM)
- Memberi pembekalan tentang studi di Jepang
- Membantu pengurusan Visa
- Pemberangkatan mahasiswa ke Jepang
- Ticket dibayar sendiri oleh mhs
- Biaya hidup di Jepang ditanggung
- Penyelesaian transfer kredit

Persiapan JDP (Jepang ke Indonesia)

- Menerima informasi mhs jepang akan ke Indonesia
- Menginformasikan program JDP ke agrokomplek
- Menginformasikan kepada fakultas yang akan ditempati mhs (thn ini terbalik)
- Membantu pengurusan visa

Smoothing and Expanding SUIJI Agenda

Herry Suhardiyanto
Rector
Bogor Agricultural University (IPB)

Kochi, 29/08/2013

Issues in SUIJI Consortium Establishment (the First SUIJI Seminar, 24/07/2011)

1. Internationalisation strategy in SUIJI consortium;
2. Role of higher education on Human Resource Development;
3. Research areas on SUIJI agenda for collaboration among SUIJI consortium.

Internationalisation and Human Resource Development

(the First SUIJI Seminar, 24/07/2011)

Global problems:

- World food security
- Energy crisis
- Environment degradation

Higher Education on Sustainable Agriculture in the Tropics

Research Areas on SUIJI Agenda

(the First SUIJI Seminar, 24/07/2011)

1. Forestry
2. Environment control
3. Functional foods
4. Fisheries and marine sciences
5. Hydrology and micrometeorology
6. Soil sciences and nano technology

Forestry

Primary successsion and rehabilitation (in post-eruption mountain in the tropics), rehabilitation of tropical forestland, agroforestry, etc with multi-disciplinary approach;

Environment Control

Speaking Plant Approach, monitoring plant physiological status, plant diagnosis, plant factory, concurrent engineering, intelligent greenhouse system, energy-efficient control, etc.

Functional Foods

Phytochemicals in vegetables and fruits, bioactive substances, antioxidants from tropical spices and herbs, food for specified health use, functional ingredients, etc.

Fisheries and Marine Sciences

Biodiversity, sustainable aquaculture, finfish & shrimp culture, vaccine for infectious fish diseases, microbes, probiotics to prevent diseases, improvement larva culture,etc.

Hydrology and Micrometeorology

Sustainable forest management, optimum forest coverage and watershed, hydrological based estimation, global standard solution for forest management, etc.

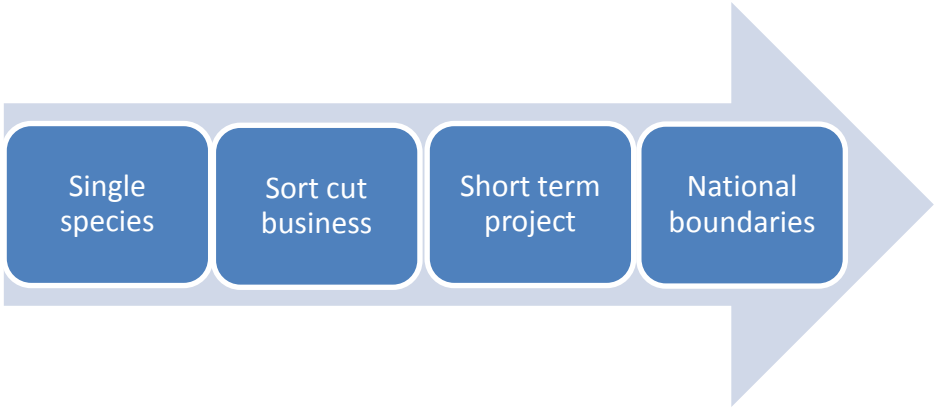
Soil Sciences and Nano Technology

Synthesis, modification, characterization of nano-particles in soil environment, nano-composite materials, computational modeling chemistry, application of nano-technology, etc.

SUIJI Model:

Forestry
Environment Control
Functional Foods

Fisheries and marine sciences
Hydrology and micrometeorology
Soil sciences and nano technology



- ***Ecosystems oriented***
- ***Biobased economy***
- ***Long-term joint research***
- ***Internationally recognized***

SUIJI JDP and SUIJI SLP

Lesson Learnt from Implementation of Servant Leadership in Bogor Agricultural University Management

- **2007:**

  Five Years Strategic Plan (2008-2013) proposed servant leadership as the approach in university management.

- **2008-2013:**

  The management serves professors and academic staffs, supporting staffs, and students not being served by others;

  Establishment of university values and principles of "IPB first", "resource sharing", "unity in one system" in the university management have been very effective to increase university performance.

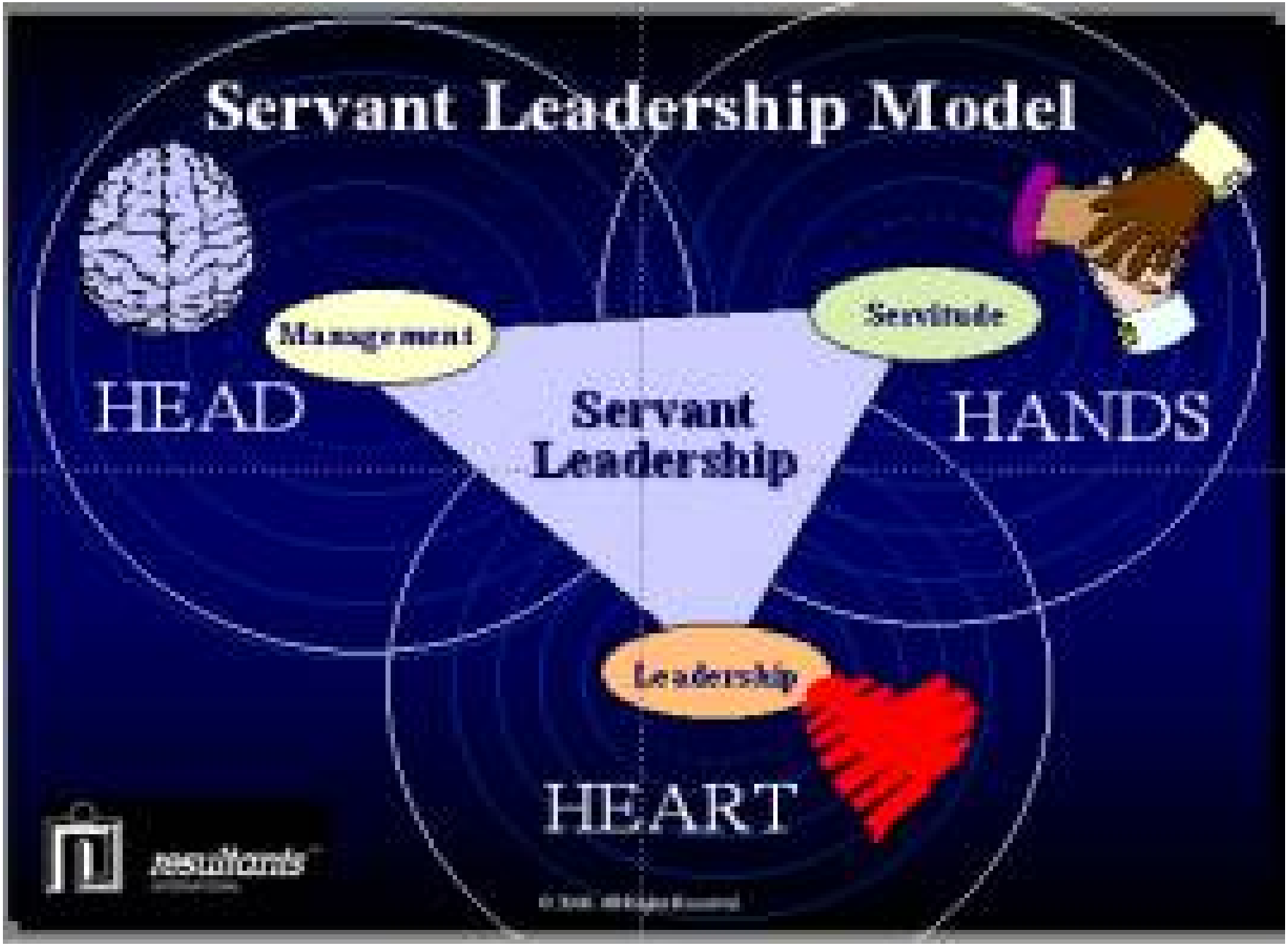
The Purpose of Establishing SUIJI Consortium (Agreement, Febr-March, 2011)

To contribute to the development of agriculture and the conservation of biological resources in the tropics;

Development and Conservation:

co-existence, local wisdom, dialogue, to hear, to discuss, etc.


Empathy
Healing
Stewardship
Awareness
Listening
Persuasion
Conceptualiz ation
Foresight
Commitment to the growth of people
Building Community
10 Characteristics of *Servant* Leadership


Servant Leadership Model
Management
Servitude
HEAD
Servant Leadership
HANDS
Leadership
HEART

SUIJI Achievement (1)

- **Consortium:**
  - **SUIJI Promotion Office/Coordinator**
  - **Funding from JSPS through Reinventing Japan 2012-2017**
  - **Funding from JASSO for student mobility**
  - **Regular Operating Council Meeting and Seminar**

SUIJI Achievement (2)

Student Mobility	SLP		JDP	
	2012	2013	2012	2013
From Indonesia to Japan	8	33	5	6
From Japan to Indonesia	49	70	2	8

Smoothing SUIJI Agenda (1)

- **Academic calendar: IPB goes to field (flexibility in scheduling)**
- **In addition to MEXT funding for SLP, JDP: support from Dikti (I), local government (J/I), private sector (J/I)**
- **Relevance of program: mainstreaming agriculture (IPB 2014-2018 strategic plan)**
- **Evaluation of six research fields : short term research stay, joint supervision.**

Smoothing SUIJI Agenda (2)

	SLP	JDP
Matching research plan both sides		√
Matching length of stay with recognation in academic program	√	
Expanding participant from all faculties in each member university	√	√
Blending financing from various sources for sustainability of funding	√	√

Expanding SUIJI Agenda

- **Smoothing SUIJI agenda is urgently needed before expanding membership;**
- **Increasing SUIJI Promotion Office/Coordinator meeting (once a year to twice a year, back to back with SLP);**
- **Starting JDP for doctoral course and initiating discussion to prepare DDP for doctoral course in 2014**
- **Welcoming associate member in next meeting in Hasanuddin University, 2014.**

THANK YOU

UNIVERSITAS HASANUDDIN

VICE RECTOR

Dadang Suriamihardja

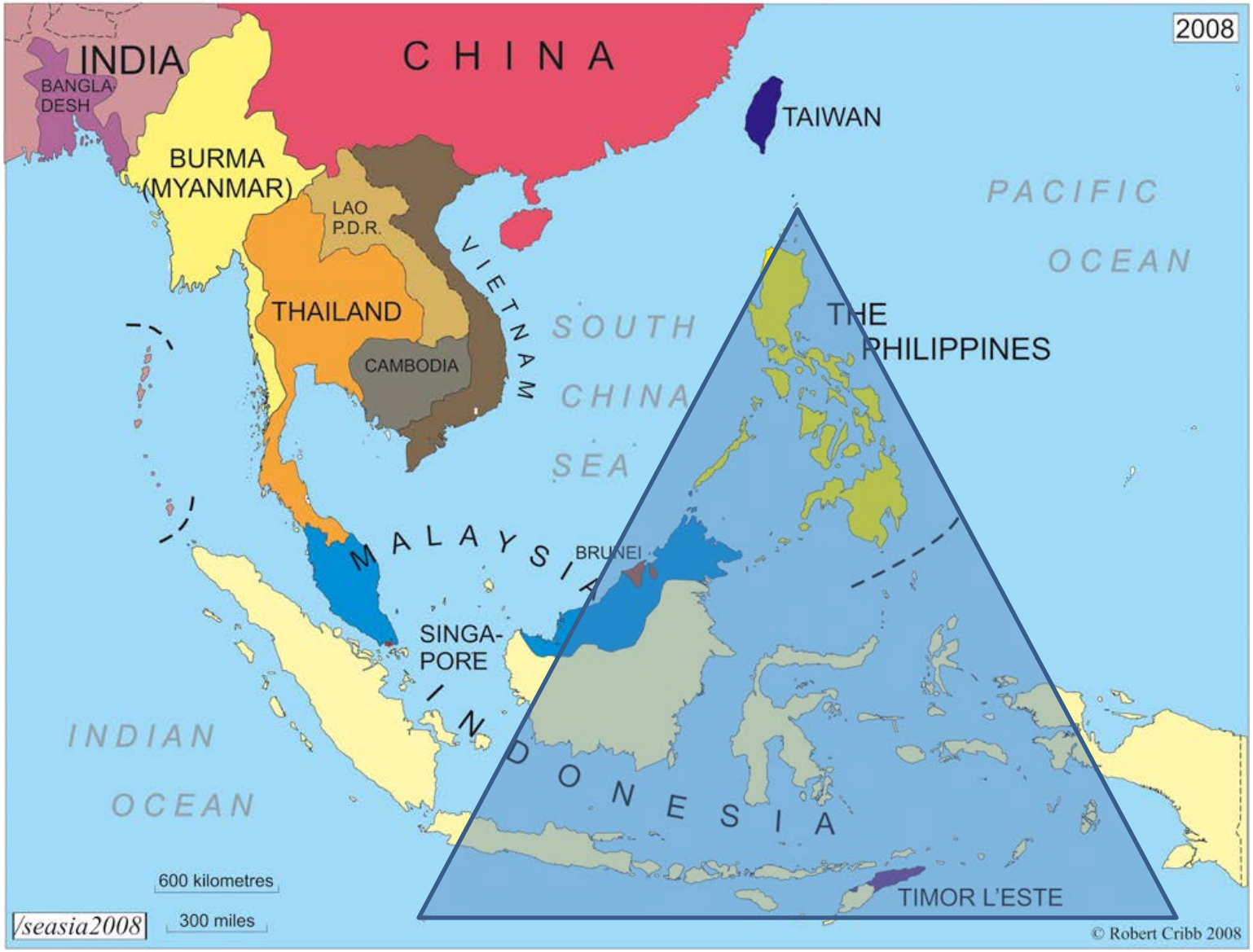
Back Ground

- Hasanuddin University under SUIJI program since 2010 already sent 17 undergraduate students (including 10 students who are now in Japan) for KKN (Service Learning Program) to Japan, and three Master JDP students.
- In the extension of SUIJI Collaboration, now 3 PhD program students are studying in Faculty of Agriculture, Ehime University.
- There are also 4 other PhD students in the other faculties in Ehime University

Related Collaboration

- A research vessel, called 'Cinta Laut', which is one of the main theme for Service Learning Program as sailing practice in the area of Spermonde Islands of Makassar Strait.

Coral Reef Triangle



Activities in 2013

- The Agriculture in the tropics as theme of SUIJI not only encouraging agro-complex related programs, both students and lecturers in our University but also contributes to community

- Now 10 undergraduate students and 2 Joint Degree Program (JDP) Master program are already in Japan
- The undergraduate Service Learning Program (SLP/KKN) students was chosen among 35 candidates and JDP Master candidates were chosen from 22 applicants.
- In the other hand Unhas already hosted 12 Japanese students from 2011 and 10 students in 2012 under International SLP/KKN program. And in September 2012 hosted one Master JDP.

SUIJI PROMOTION OFFICE at Hasanuddin University

Hasanuddin University already established a SUIJI Promotion Office under the Coordination of DR. Agnes Rampisela in order to increase the quality of service and contribution to SUIJI activities.

Hasanuddin University is now trying to secure special budget to support SUIJI related activities.

UNHAS main facilities

To contribute and strengthen the collaboration among SUIJI members, we would like to offer the opportunity for doing collaboration research by utilizing our facilities mainly in

A. TEACHING INDUSTRY

Center For Innovation And Business Incubator

B. TEACHING (extension) FOREST including sago forest

C. MARINE STATION and BRACKISH WATER POND and RESEARCH CENTER for CORAL REEF

With these facilities we tried to emphasized community needs related researches.

The area of teaching forest is
1300 ha
having endemic species:
Macaca maura, tarsius etc

- The area of 1,300 ha, mainly consists of natural forest (520 ha) and plantation forest (423 ha). The rest of them are open ground and development areas for forestry activities.
- It has a great value of natural beauty in which parts of the area are being habitats for various endemic species such as *Macaca maura*, the Tarsius, and many more.
- The Extension Forest area is becoming a very strategic location with plenty of opportunities for the development of conservation areas. In addition, the presence of community members living in and around the extension forest is now considered to be an inseparable part in the extension forest development.

Teaching Forest: education facilities

- Classrooms and meeting and exhibition room

- As the forest area is declared for educational purpose, Unhas has been doing important researches through the participation of professors, researchers and student groups as well as the empowerment of community living around the forest.

Activities in Teaching Forest

- Various activities and other development programs have been carried out in cooperation with various parties, including other universities, national and international institutions.
- To support the activities in the forest areas, Unhas has provided students, researches, and communities with education facilities, classrooms, and supporting buildings such as auditorium, guest house, communication networks, transportation facilities and camping ground.

Management Model

- Currently, an educational forest management model is under developed through a comprehensive approach involving the development of land use, food production, medical plants, fuel wood, non-woody forest products as well as hygienic water and healthy services.

TEACHING INDUSTRY:
Center For Innovation And Business Incubator

- Actively involves in R&D for the development of new technologies and industries based on domestic natural resource.
- Committed to play its role as *"knowledge server"* for agroindustri development.

PURPOSE OF TEACHING INDUSTRY

- To enable university researchers to develop their creativity and to transform their creative ideas into new value added products.

- To increase synergism among researchers from all branches of science to optimize the impacts of research conducted and to pave ways for commercialization of technologies developed at Unhas.

PURPOSE OF TEACHING INDUSTRY

- To develop technology and business incubators based on innovations developed by researchers at Unhas.
- To provide platform for students to involve in and learn about product developments.
- To facilitate government-business-university cooperation for capitalization of innovations developed at Unhas.

FOCUS AREAS

- Processing of strategic commodities (seaweed, cocoa, and palm oil).
- Dairy products processing.
- Agricultural products processing

COCOA PROCESSING

FROM COCOA BEANS TO CHOCOLATE

VALUE ADDED CREATION

MODALITY AT TEACHING INDUSTRY

- Building
- Machineries for cocoa bean processing (based on domestic technology) and chocolate production (based on European technology)

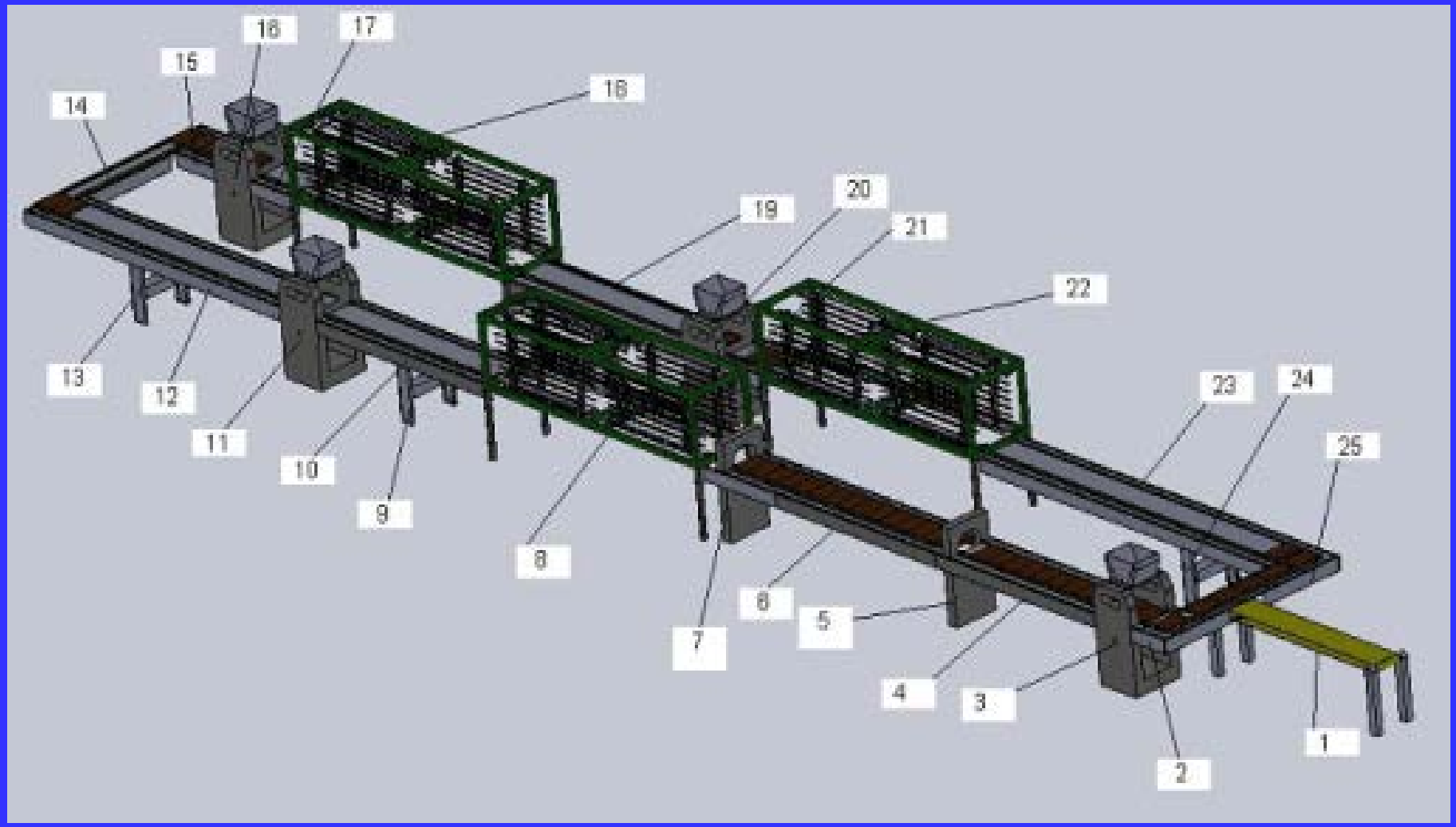
CHOCOLATE MIXER

CHOCOLATE REFINER

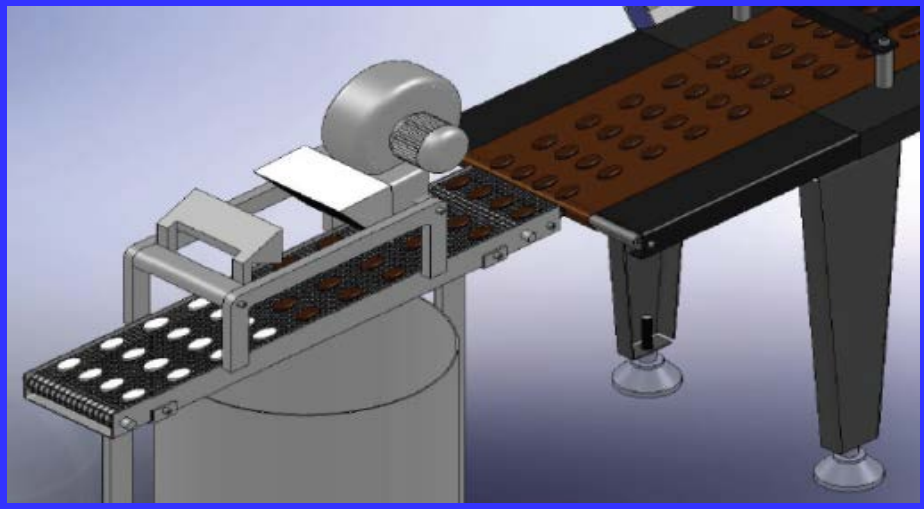
CHOCOLATE CONCH AND STORAGE TANK

CHOCOLATE TEMPERING MACHINE

CHOCOLATE MOULDING PLANT



CHOCOLATE ENROBING MACHINE



QUALITY CONTROL LABORATORY

Celebes Chocolate

Yesterday we conveyed Celebes Chocolate produced by the Teaching Industry Unit of Unhas.

How is the taste ?

With these facilities we believe that education and research in Universitas Hasanuddin will contribute to SUIJI and to community

Lets work together, educate our young generation in development of agriculture in the tropics to harvest more in the future

Haiku of Kiyoshi Takahama

真直ぐに
歩調そろへて
青き踏む
(Massugu ni / hochoh soroete / aoki fumu)

Straight
We keep in step
Treading on the green

Thank You !

SUIJI Service Learning Program
Leading the way for our Futurability

- Integrating University Education and Community Service -

Photo from SUIJI Seminar I

Yasunobu Yanagisawa
President, Ehime University

SUIJI Seminar III
Kochi, Aug. 28-30, 2013

EHIME UNIVERSITY

1. Program Selected for the “Re-Inventing Japan Project”

- MEXT “Re-Inventing Japan Project” Type I
  - The "Re-Inventing Japan Project" is a government funding project that **aims to foster human resources capable of being globally active**, and to assure the quality of mechanisms for the mutual recognition of credits and grade management through an international framework, **by giving financial support to efforts for the formation of collaborative programs among universities in Japan and ASEAN**, that conduct study abroad programs for Japanese students and undertakes the strategic acceptance of foreign students.
- Selected as one of the **9** programs from **54** applications for the FY 2012
- Project span: starting from Oct. 2012 until Mar. 2017

Project Aims

Title: Six-University Coordinative Service Learning Program (SLP) at the Rural Communities in Japan and Indonesia

Aim: Training dedicated **international 'servant leaders'** who, will contribute to the sustainability for our future society by supporting **primary industry** at the region level.

Program Summary

- Students in the undergraduate and graduate courses of the Japan/Indonesia 6-university consortium……
- will live 1 week to 3 months in a local community and carry out a themed service learning (**SLP**).
- For the masters post-graduate students, joint degree(**JDP**) programs are provided in the field of agriculture.

2. Potentials of our service learning program as an axis of community service through cooperation between Japan and Indonesia

Indonesia

Develop International KKN Program

- 1990's : Shift from Rural development program to Rural capacity-building program.
- 1970's:KKN model established in 3 regions by DIKTI. Expanded as a nation wide program.
- 1950's : KKN started as a support program for higher education that was suffering from the lack of faculty staff.

Establish a new International Service Learning Model

International Collaboration

Japan

Develop International SLP Program

- Hands-on Tropical Agriculture program through SL was installed as a mutual student exchange program between Indonesia and Japan（Since 2008, 55 students participated from both countries during 6 programs）
- Since 2006, Environmental-ESD program was installed as SLP (selected as MEXT GP) in the Ehime University curriculum (712 students participated）.

Missions of our Collaboration

KKN for Indonesia

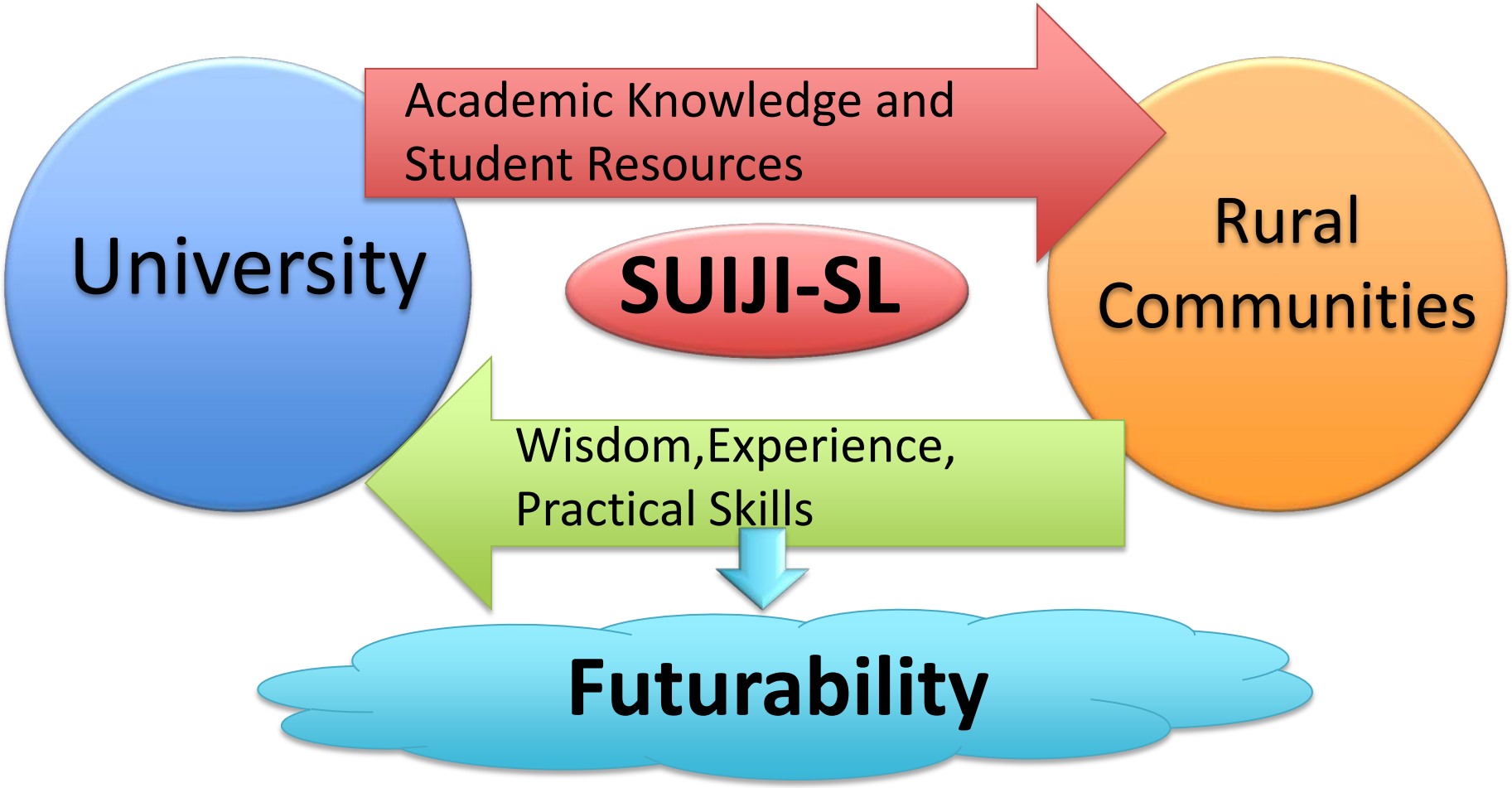
- Contribute to…
- solve the problems which the rural area in developing country faces
- for example, poverty, delay in rural development, environmental destruction

Service Learning Program for Japan

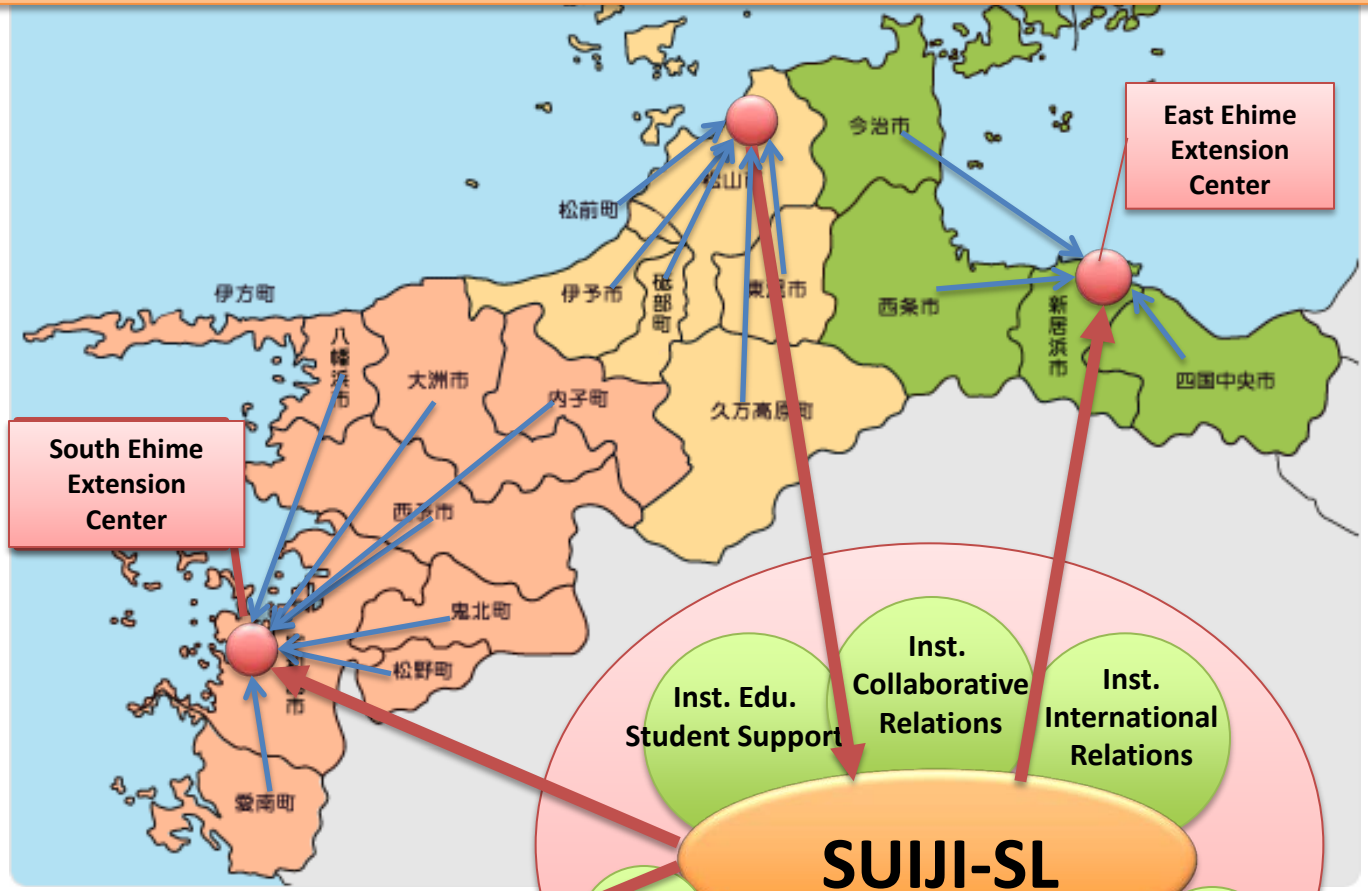
- Contribute to…
- solve the problems which the rural area in developed country faces
- for example, depopulation, aging society, poverty, decline in community system, environmental deterioration

Forming a new paradigm of rural development

Service Learning for our Futurability



A model of Regional Network of Community Service through SUIJI Service Learning



South Ehime Fisheries Research Center

Uwajima Extension Center

Establish a new model of community service in higher education which combines education, research, social cooperation, and international cooperation

International Regional contribution through JICA Partnership Program

EHIME UNIVERSITY

3. The Relation between the Direction of Education at Ehime University and the SUIJI Program

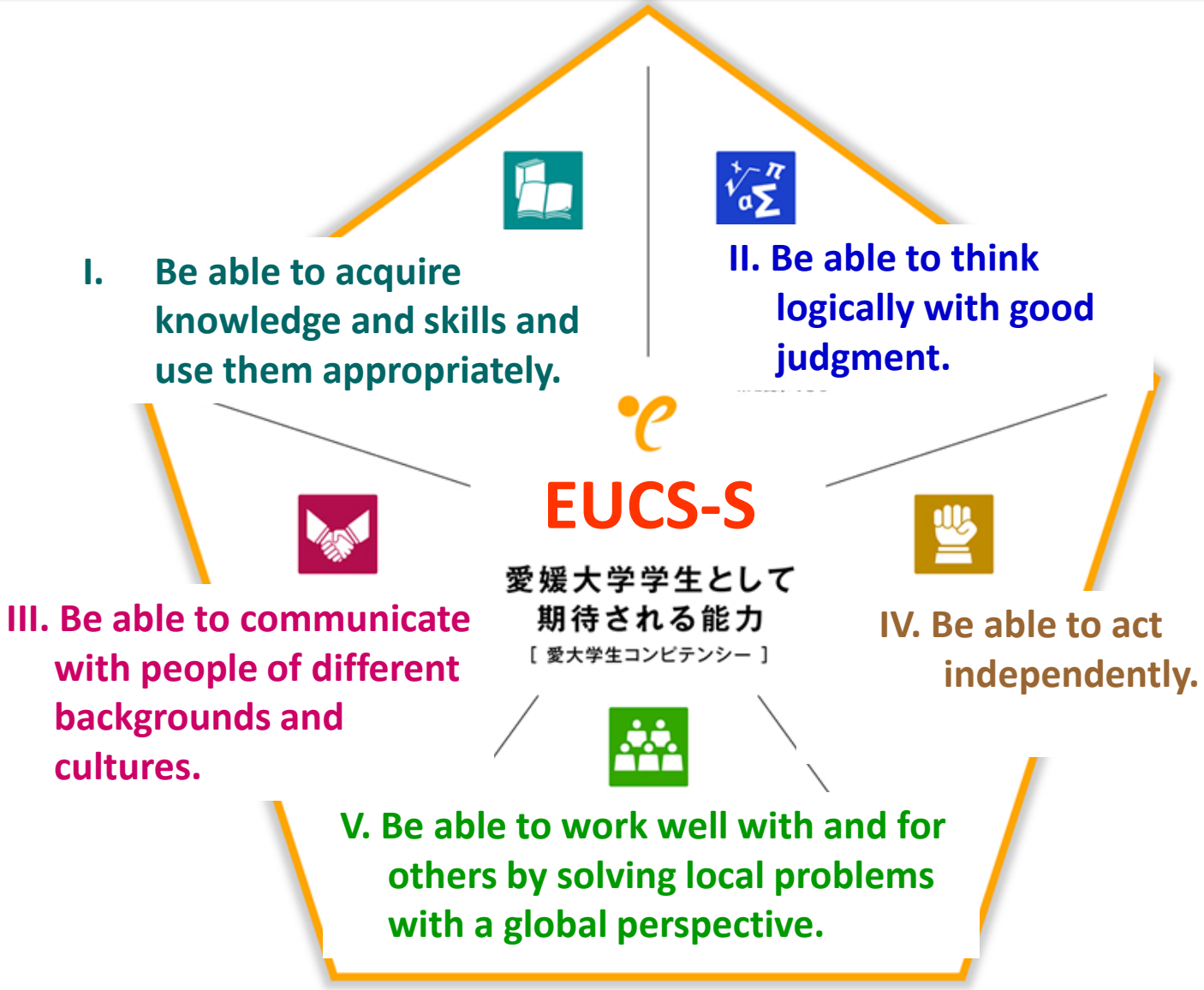
Especially in regard to…

the **S**ervant **L**eader **P**rogram (SvLP)

And

the **S**ervice **L**earning **P**rogram (SLP)

Ehime University Competencies Standard for Students (EUCS-S), est. 2012



Training of Generic Skills (from 2011)

One of the important parts of these skills is also…

"Be able to work well with and for others using a global perspective to solve local problems."

For achieving these skills…

- At present,

All skills should come together in the graduation thesis.
In Japan, the graduation thesis is given great weight in university education.

- However,

If we are truly serious about achieving these skills,
the graduation thesis is not sufficient to ‘exercise the acquired knowledge and skills in order to solve a problem’.

- What should we do?

It is necessary to have problem-based learning (PBL), or subject packages, throughout the curriculum in order to promote these skills.

SvLP and its core; SLP

- SvLP and its core SLP are package classes from the 1st through the 4th years.
- They train generic skills and foster consciousness of the 5 EUCS-S.
- To achieve our goals for student development:
  → Basic know-how through our experience with Education For Sustainable Development (ESD) at Ehime University.
  → The legacy of the Indonesian KKN program.

Deep meaning of the connection to KKN

For the students from both countries…

The encounter with a different culture will be stimulating.
They will quickly gain communication skills.

But the more important…

This should be an opportunity to look at the local community, Japan and the world to see what their characteristics are
and to learn…

when to take leadership and what can be done.

Our direction

SvLP as a ‘development subject’, of this year.

In the near future…

1. The program will be offered by the whole university.
2. Links with communities in Ehime Prefecture, as well as abroad, through community service learning.

4.Expectations for SUIJI

The educational program has begun…

Thinking about how to solve local issues on a local scale.

Training people who will contribute to their communities, to Japan, and to the world.

Great expectations for the SUIJI consortium…

For the development of this educational program by the cooperation of Japan, the world and local communities.

Kagawa University Service Learning at the islands in the Seto Inland Sea

Presentation at
The 3rd SUIJI (Six University Initiative Japan Indonesia) Seminar
Kochi, Japan
28th – 29th August 2013

Seigo Nagao, President, Kagawa University

Flow of presentation

- Brief introduction of Kagawa University
- Service Learning at Kagawa University

  1.‘Wa’ Café in Naoshima

  2.The Triennial International Seto Inland Sea Art Festival
- Conclusion

Brief introduction of Kagawa University

Location of Kagawa University

Main Campus

Medical Campus

Engineering Campus

Agriculture Campus

Main Campus (Edu, Eco, Law)

Medical Campus at Miki-cho

Engineering Campus at Hayashi-cho

Agriculture Campus at Miki-cho

Some fast facts

Students (2013 figures)	
Undergraduate	5, 679
Graduate	860
Total	6, 495
(International students	188)
Affiliated schools enrolment	2, 016
Staff members (2011 figures)	
Full time	1, 904
Part time	851
Total	2, 755
Grand total	**11, 266**

‘Wa’ Café in Naoshima

- About 10 years ago, the Kagawa University Economics Department launched the ‘Wa’ Café in the world famous ‘art-island’ of Naoshima.

- The aim is to provide students with a service learning environment outside of the university classroom.

- A vacated residential house was rented and turned into a café.

Location of Naoshima

- Under the supervision of faculty members, students work together during weekends and public holidays to provide meals, drinks, and desserts at reasonable prices.

- When I visited the café, I found it to be very clean and the service courteous and friendly.

Three notable points on this project

Point 1: Long running and firmly anchored onto the local community

The café offers a platform and an opportunity to establish friendship with tourists and members of the local community.
Through these activities, the students have earned the trust and support of the Mayor of Naoshima Town.

Point 2: The café is student-centered and student-administered

Students work in groups, each creating their own menu and their own style of service.

Each group obtains their own materials/ingredients, keeping the environment in mind to minimize wastage of resources.

Point 3: 'Peer Teaching' where everybody is a teacher (屋根瓦方式)

Upper-class students pass on the knowhow and skills of running the café to their juniors.

View of Wa Café from the outside

Wa Café student staff in the kitchen

Wa Café student staff serving customers

Wa Café student staff with President Nagao

Wa Café student staff with members of the Naoshima community

Wa Café student staff with school children of Naoshima

The Triennial International Seto Inland Sea Art Festival

- Next, I'd like to bring your attention to another ongoing service learning project: the Triennial International Seto Inland Sea Art Festival.
- This is a series of 12 concurrent projects.
- Out of which, 7 projects form the core/essence of a two-credit class
- The class runs throughout the 2013 academic year.

View of Seto Inland Sea

- All projects are based in 12 islands and 2 cities.
- Supervised by faculty members from several departments in the university.
- Currently, about 120 students are participating in this project.

Students embarking a ferry for the islands

International students listening to a Honjima elder telling a story

International students having a joint study session with primary school children at Takuma town

Kagawa University ‘Enoki’ Café (Sakaide City, Shami Island Project)

‘Mini’ Pilgrimage Experience at Shodo Island

‘Mini’ Pilgrimage Experience at Shodo Island

Flute and Guitar Duo Concert at Ibuki Island

Concluding remarks

Through the service learning fieldwork, students

1. cultivate a sense of positive engagement and commitment to the good of the local community
2. discover their ‘hidden’ potentials that might be overlooked in the traditional classroom
3. refine their communication skills in the context of the ‘real’ world

Thank you very much
for your kind attention…

Initiatives in Kochi University's Community Partnership and Utilization of SUIJI Service Learning

Hiroshi Wakiguchi

President, Kochi University

“University for the Community”, the highest priority

- To make countermeasures against community problems together with regional stakeholders.
- To promote Community Collaboration Education, developed 20 service learning field

Kochi : Aging society with fewer children

Causes such problems as;

- deteriorating conditions of life in the rural areas,
- declining industries,
- frequent occurrences of natural disasters.

- serious gap between urban and rural

"Tosa Food Business Creators”

A collaboration of the University, local governments, and industries

"Tosa Food Business Creators"

- To provide nearly 200 hours of lectures and practices per year in food processing, hygiene, marketing.
- 150 people completed the courses

Center of Community

- Kochi Univ. designated as one of 52 Univ.
- Aim: strengthening the functions of universities as leaders within their local communities
- University function: the focal point of human resources, information, and technology that can be applied to community problems.

COC reform (1)
Establishment of New Faculty of Community Collaboration

- Educate students as future leaders of community collaboration through the study on community policy
- Enhance action research in industry and economy, life and welfare, culture and sports, and disaster prevention
- Provide local community education

COC reform (2)
Establishment of 7 branches and University Block Coordinator

- Enhance the relations with Kochi prefectural government and other municipalities in Kochi.
- Establish 7 regional branches within Kochi Prefecture stationed by University Block Coordinators (UBCs).
- Function as a advisor and HRD course conductor for students and local people.

7 Branches and University Block Coordinators

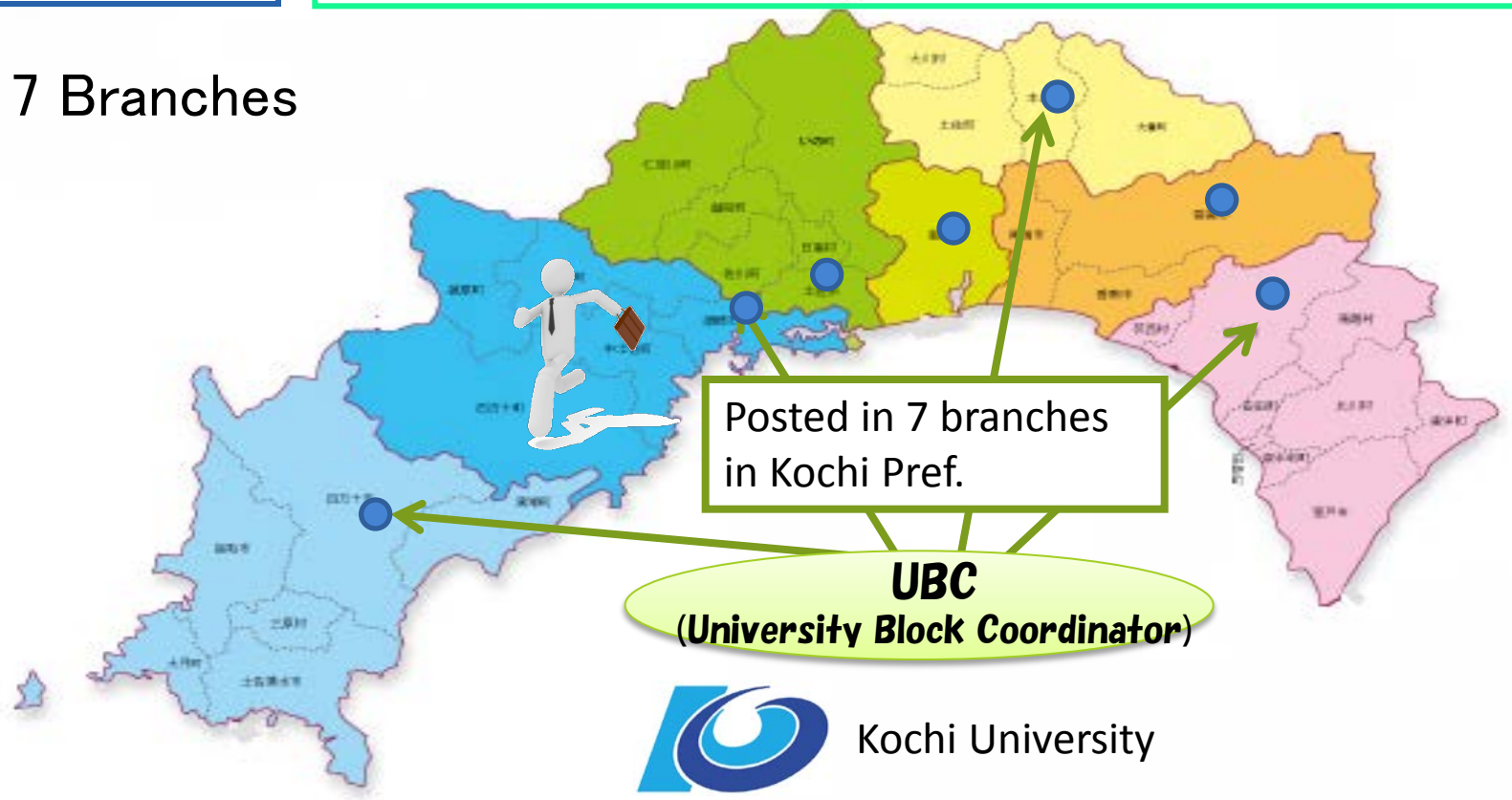
UBC Function

①Advisor
②HRD course conductor

Match various problems of local communities with our academic resources.

Conduct human resource development of both students and community.

- 7 Branches



Kochi University

University and communities (1)

- The University's relations with local communities have been focused on the application of the University's scientific knowledge for the solution of community problems.
- Nowadays, the traditional knowledge of the local communities is increasingly recognized as of considerable value among academic establishments.
- Some instructors take students into communities so that they can connect what is learned in the classroom with an actual problem in the fields. As these cases show, we can learn much from local communities.

University and communities (2)

- Absorbing the wisdom to be found in the local communities is very important for education.
- Instead of merely offering the University's scientific knowledge to the local communities, our stance to learn from them is the key to progress in the collaboration between the University and the local communities.
- Kochi University as a COC will come together with the local communities in an invaluable long-term relation.

SUIJI Service Learning: An Opportunity to Develop International Perspective

Community collaboration leaders must have broad vision based on the experience abroad

Learning in Japan

Activities in Japan

Apply

Activities in Indonesia

Apply

Learning in Indonesia

I believe the students will develop international Ideas and perspectives.

Thank you for your kind attention!

Hiroshi Wakiguchi

President , Kochi University

Kochi Declaration of the SUIJI Forum 2013

Herewith, the Presidents of Ehime University, Kagawa University and Kochi University of Japan and the Rectors of Universitas Gadjah Mada (UGM), Bogor Agricultural University (IPB) and Universitas Hasanuddin (UNHAS) of Indonesia agree to start SUIJI Service Learning Program (SUIJI-SLP) in the SUIJI Consortium in Sustainable Agriculture Development under the Memorandom of Agreement enacted on August 29th, 2013 and implement activities mentioned in "SUIJI Agenda 2013" attached herewith.

Kochi, 29 August 2013

Signature:_____
Rector
Universitas Gadjah Mada (UGM)
Indonesia

Signature: 柳澤康信
President
National University Corporation
Ehime University
Japan

Signature:_____
Rector
Bogor Agricultural University (IPB)
Indonesia

Signature:_____
President
National University Corporation
Kagawa University
Japan

Signature:_____
Rector
Universitas Hasanuddin (UNHAS)
Indonesia

Signature:_____
President
National University Corporation
Kochi University
Japan

SUIJI Agenda 2013

The SUIJI Consortium will carry out the following Agenda within the 2013 academic year.

Agenda 1
The members of SUIJI Consortium should assist to obtain VISA for each Program students.

Agenda 2
The members of SUIJI Consortium will exert efforts to work out the details (formulate framework) about SUIJI Double Degree Program for its early realization.

Agenda 3
The SUIJI Consortium will begin talks concerning associate members of SUIJI according to Terms Regarding the Agreement for a SUIJI Consortium.

Agenda 4
The members of SUIJI Consortium will exert efforts to promote collaborative research.

Agenda 5

(1) The SUIJI Consortium will implement SUIJI-SLP according to the following:

a) The SUIJI Consortium will carry out "Six-University Coordinative Service-Learning Program at the Rural Communities in Japan and Indonesia" under the JSPS Re-Inventing Japan Project.
b) Fifty-five students will go from Japan to Indonesia under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
c) Thirty-seven students will go from Indonesia to Japan under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
d) The number of students in the programs mentioned above is subject to change.

(2) The SUIJI Consortium will implement SUIJI-JDP according to the following:

a) Eight students will go from Japan to Indonesia under the JSPS Re-Inventing Japan Project and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
b) Six students will go from Indonesia to Japan under the JSPS program mentioned above and the JASSO student exchange program "Sustainable Agriculture in the Tropics".
c) The number of students in the programs mentioned above is subject to change.

(3) The members of SUIJI Consortium will exert efforts to acquire funding for the SUIJI-SLP and SUIJI-JDP.

Closing Remarks

First of all I would like to express my gratitude to Kochi University, and SUIJI organizer for arranging a very fruitful Symposium and enjoyable dinner party here in beautiful Kochi

We are glad that we all coming here to discuss better education for our students education which preparing the student to grasp reality in community and how they implement their knowledge for the sake of community and environment

We believe that this SUIJI Program will be really encourage young generation to study AGRICULTURE and work in agricultural field aas our main theme is Agriculture in the tropics.

We are welcome you in Hasanuddin University Makassar Sulawesi INDONESIA next year end of August 2014 as we will host the 4th SUIJI Seminar.

Rector of Hasanuddin University

Memorandum of Agreement for the SUIJI Joint Degree Program (SUIJI-JDP)

Memorandum of Agreement for the SUIJI Service Learning Program (SUIJI-SLP)

Ehime University, Kagawa University and Kochi University of Japan and Universitas Gadjah Mada (UGM), Bogor Agricultural University (IPB) and Hasanuddin University (UNHAS) of Indonesia agreed to the SUIJI (Six-University Initiative Japan Indonesia) Consortium concept and concluded "An agreement for the SUIJI (Six-University Initiative Japan Indonesia) Consortium for Sustainable Agriculture in the Tropics" on March 16, 2011. The parties agree to the memorandum below to set up Service Learning Program (SUIJI-SLP) based on the second clause of the agreement.

SUIJI-SLP is a program in which SUIJI-SLP students (Students) will participate in the SUIJI Service Learning (SL) which is to be carried out in rural and marine areas by the SUIJI Consortium member universities, and learn, through experience, about the issues related to the site. Students who acquired the predetermined credits can be certified by the SUIJI Consortium as Servant Leader.

1. SUIJI-SLP

(a) An outline of SUIJI-SLP

SUIJI-SLP consists of SL which is to be carried out by the six universities. Students take part in any of the SL carried out in their home country and abroad. SUIJI Servant Leader Training Center (main office: Ehime University) will coordinate the implementation of the SL.

(b) SUIJI-SLP Education System

Students, in principle, take the subjects Introduction to Regional Futurability, Culture Sharing for Futurability, and recommended subjects (Survival Communication, etc.), offered by their home university, and then take part in SL in their home country and abroad. Credits will be awarded to the Students by their home university.

(c) Host University for implementing SLP

The university which holds SL will be referred to as the host university for the students participating in the SL.

2. Students

(a) Applicants

Students enrolled in a member university of the SUIJI Consortium are eligible to participate in the SUIJI-SLP.

(b) Student Selection

Rules regarding the selection of the Students will be determined separately.

(c) Status of students participating in SL abroad

Students participating in SL abroad will be given enrollment status (Short-term international student, Short-term exchange student, Special Auditor, etc.) by the host university.

3. Recognition of SL credits

Each university will award credits to Students who finish SUIJI-SLP according to the regulations at home university.

4. Qualification as Servant Leader

Students who acquired the required credits can apply to be qualified as Servant Leader by the SUIJI Consortium.

5. Tuition and Fees at the Host University

The host university will not charge any examination, admission and tuition fee.

6. Expenses for SUIJI-SLP

(a) SUIJI Consortium will make an effort to secure a budget for SLP.
(b) Students will pay the expenses that cannot be covered by (a), such as travel expenses, room and board and travel insurance.
(c) The home and host universities will discuss the project expenses when necessary.

7. Intellectual Property Rights

Rules regarding intellectual property rights will be determined separately.

8. Risk Management

If a problem or accident occurs during the SUIJI-SLP, the home and host universities, with the coordination of SUIJI Servant Leader Training Center (main office: Ehime University), will deal with the problem in an appropriate manner.
In addition to the provisions of this memorandum, detailed requirements concerning SUIJI-SLP exchange of students and academic staff are provided in Appendix D ("Notes on risk management for the exchange of students and researchers under SUIJI ") of the "Minutes of Six Universities SUIJI Promotion Meeting for SUIJI Service Learning Program and Joint Degree program."

9. Terms of the Memorandum

This memorandum shall remain in force for a period of five years, beginning on the date this memorandum is signed. The memorandum may be changed or modified according to the agreement of the SUIJI Consortium. This memorandum may be terminated according to the agreement of all the parties at any time even though the term is not yet over.

10. Details

In addition to the provisions of this memorandum, detailed requirements concerning the exchange of students and academic staff participating in SUIJI-SLP will be determined separately.

11. Additional

Six copies of this memorandum will be prepared in English. All six copies will be equally official. Each party shall keep one signed copy.

Additional Clause

This Memorandum of Agreement for the SUIJI Service Learning Program (SUIJI-SLP) goes into effect from April 1, 2013.

Date:

Signature:

Rector
Universitas Gadjah Mada(UGM)
Indonesia

Date: August 29, 2013

Signature:

Rector
Bogor Agricultural University (IPB)
Indonesia

Date: 29 August 2013

Signature:

Rector
Hasanuddin University (UNHAS)
Indonesia

Date: 29 Aug, 2013

Signature: 柳澤康信

President
National University Corporation
Ehime University
Japan

Date: 29 August, 2013

Signature:

President
National University Corporation
Kagawa University
Japan

Date: 29 August 2013

Signature:

President
National University Corporation
Kochi University
Japan

あとがき

この報告書は、参加大学から提供いただいた資料を基に作成しております。

Postscript

This report is based on the offered data from attended universities.

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