



# PRESENTATION FOR JASSO SHORT-TERM EXCHANGE STUDENT



## CONTENT

1. Self-introduction
2. Undergraduate study
3. Current study in Vietnam
4. Study plan at GSGES - Kyoto university

**Student:** Do Thi Phuong Thao

**Supervisor:** Prof. Shigeo FUJII - GSGES

***Kyoto, 24<sup>th</sup> April, 2013***

# 1. SELF-INTRODUCTION

Full name: Do Thi Phuong Thao

Nationality: Vietnamese

Occupation: Officer at Hanoi Department of Natural Resources & Environment/Department of Water Resources & Meteo-hydrology

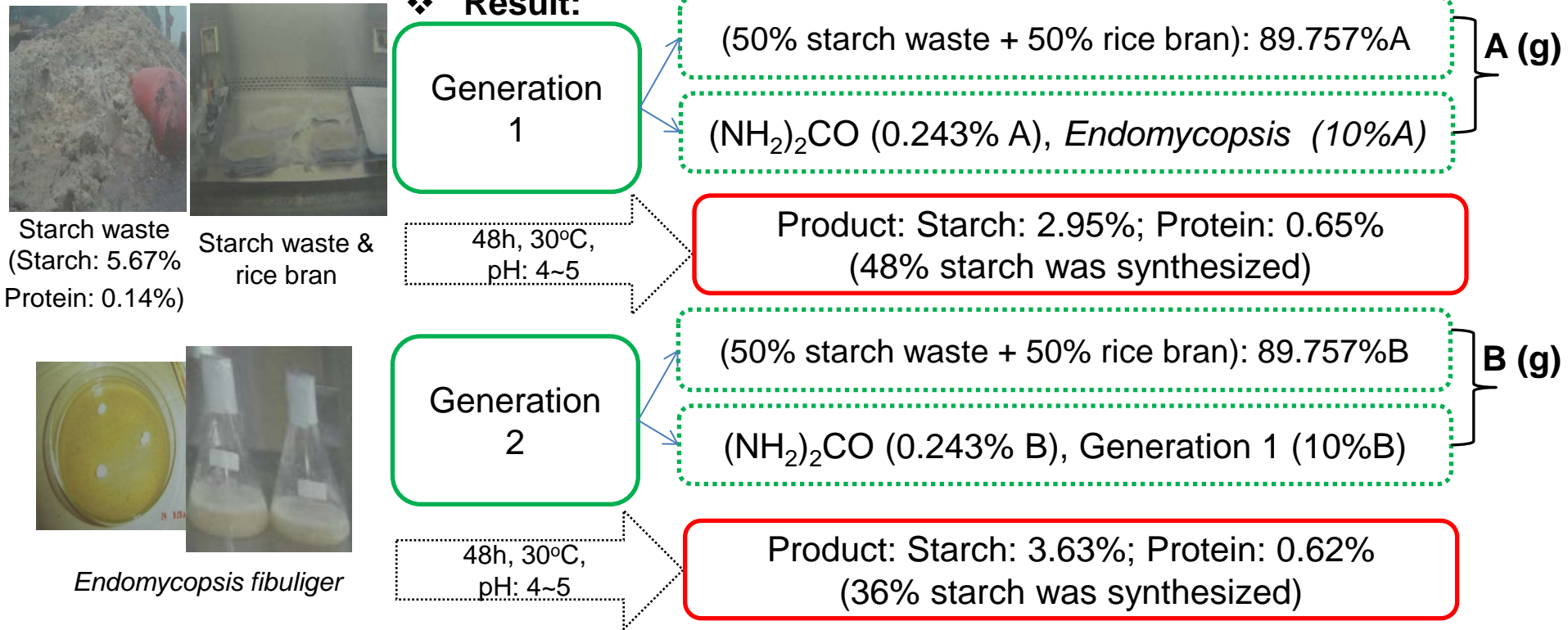


Academic: M2 student - Hanoi University of Science and Technology (HUST) – School of Environmental Science and Technology/Department of Environmental Management

- ❖ Study duration at GSGES: 6 months (4<sup>th</sup> April ~ 26<sup>th</sup> September, 2013)
- ❖ Supervisor at GSGES: Prof. Shigeo FUJII
- ❖ Supervisor at HUST: Dr. Van Dieu Anh

# 2. UNDERGRADUATE STUDY

- ❖ **Thesis:** Potential recovery of starch from starch waste in cassava production process to produce foodstuff for cattle (A case study: Duong Lieu craft-village, Hoai Duc district, Ha Tay province)
- ❖ **Objective:** To evaluate recovery possibility of starch from cassava production process
- ❖ **Methodology:** using *Endomycopsis fibuliger* yeast to synthesize protein from starch waste



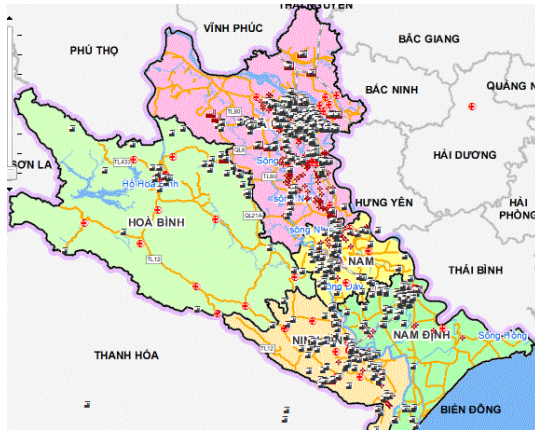
## Conclusion and recommendation:

- It is possible to produce foodstuff for cattle from starch waste (need further research)
- It helps to reduce generated amount of solid waste as well as make benefit

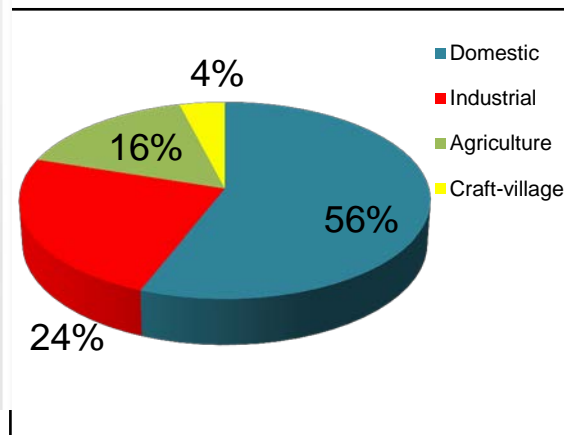
# 3. CURRENT STUDY IN VIETNAM

Wastewater inventory at Nhue-Day river basin (A case study: Tu Liem district, Hanoi, Vietnam)

## 3.1 Background of Nhue-Day river basin



- ❖ Located in the south-west of the Northern Plain, on the right bank of Hong river. 5 provinces are relevant to the basin: Ha Noi, Hoa Binh, Ha Nam, Ninh Binh, Nam Dinh.
- ❖ To supply important water sources serving agricultural and industrial production.
- ❖ Serve as a drainage system, especially in the flood season



The percentage of wastewater sources in Nhue-Day river basin

Source: Environment Report of Vietnam, 2006

❖ Be suffering strongly from wastewater of domestic, industrial, agriculture

- ❖ Many parameters have exceeded permitted standards for surface water such as COD, BOD<sub>5</sub>, Coliform...

Inventory the contribution of pollution sources to Nhue-Day river basin is needed

# 3. CURRENT STUDY IN VIETNAM

## Wastewater inventory at Nhue-Day river basin (A case study: Tu Liem district, Hanoi, Vietnam)

### 3.2 Objective:

- ❖ Objective 1: To identify all pollution sources
- ❖ Objective 2: To calculate pollution load
- ❖ Objective 3: To estimate contribution of pollution load of Tu Liem district to Nhue-Day river basin

### 3.3 Methodology:

- ❖ Definition: Wastewater inventory is an accounting of the amount of water pollutants from all activities discharged into one reception source in specific period
- ❖ Site study: Tu Liem district, Hanoi province, Vietnam
  - Located in the western gate of Ha Noi
  - Natural area: 75.15 km<sup>2</sup>
  - Population: 550,000
  - Activities: industry, agriculture, domestic



# 3. CURRENT STUDY IN VIETNAM

Wastewater inventory at Nhue-Day river basin (A case study: Tu Liem district, Hanoi, Vietnam)

## 3.3 Methodology (cont.)

### OBJECTIVE

Objective 1: To identify all pollution sources

Objective 2: To calculate pollution load

$$PL = \sum V_i C_i$$

*PL*: pollution load, *V<sub>i</sub>*: wastewater volume of pollution source *i*, *C<sub>i</sub>*: pollutant concentration of pollution source *i*

Objective 3: To estimate contribution of pollution load of Tu Liem district to Nhue-Day river basin

### METHODOLOGY

Field survey

Secondary data collection

Sampling and analysis (BOD<sub>5</sub>, COD, SS, flow rate)

Secondary data collection

River survey (flow rate survey, sampling and analysis)

Secondary data collection

Objective 1, 2 → Study and experiment in Vietnam

Objective 3 → Study and experiment in Kyoto university

### 4.1 Study content:

- ❖ Objective: To estimate contribution of pollution load for BOD<sub>5</sub>, COD
- ❖ Methodology:
  - Study site: Kamo river
  - River survey (measure flow rate, take sample and analysis)
  - Calculate according to “Material Flow Analysis – MFA”
  - Secondary data analysis (if having data)

### 4.2 Expected outcome:

- ❖ Be able to do river survey professionally
- ❖ Be able to apply MFA to wastewater inventory



#### **4.3 Benefit from studying in Kyoto university:**

- ❖ Approach new and effective environmental technology as well as environmental management tools
- ❖ Obtain more knowledge about environmental issues, share and learn experience among various countries
- ❖ Learn methodologies and procedures to do river survey as well as calculate pollution load

#### **4.4 How the study in Kyoto university can be useful for the study in Vietnam:**





- ❖ Supplement new methodologies to calculate pollution load exactly
- ❖ Use gained experiment from river survey at Kamo river to apply for wastewater inventory in Vietnam



# 4. STUDY PLAN AT GSGES – KYOTO UNIVERSITY

## Study on wastewater management techniques in Japan

### 4.5 Detailed study schedule:

Activities	Apr	May	Jun	Jul	Aug	Sep
Introduction presentation	 24 <sup>th</sup>					
Participate into class (11 credits, Japanese class)						
Study at lab and do survey at Kamo river			 14 <sup>th</sup> Pocket- seminar			
Field trip					 5 <sup>th</sup> ~ 8 <sup>th</sup>	
Program report						
Final presentation						 20 <sup>th</sup>

**THANK YOU FOR YOUR ATTENTION!**

# **Challenge of Rice Market for Sustainable Agriculture (Indonesia and Japan's experience)**

**Lilis Verawati**  
**JASSO Short Course Program**  
**GSGES Faculty, Kyoto University**

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# About Myself

My name is Lilis Verawati ( リリス ベラワティ ) → →

- I'm staying in Kyoto for 149 days
- Undergraduate in Economics – Mercu Buana Univ., 2006
- My study topic while was undergraduate :

*“Analysis Using Bankruptcy Prediction Models of Altman (Z-score), Case Study of PT. Sony Indonesia”.*



Research and study in Kyoto University  
Faculty of GSGES under the supervision of  
Prof. Andreas NEEF. → → →



In Indonesia, affiliated with Trade Ministry of Indonesia as internal Auditor,

and undertaking master degree in Development Studies, ITB under the supervision of

Associate Professor Muhammad Tasrif → → →





# Topic of Study in Indonesia

## *Study of Rice Market & Supply Chain with System Dynamics Method*

☞ General question:

What are the implications of the rice market involving farmers, traders, Bulog (Indonesia food SOE) and consumer brings on the supply and price of rice?

☞ Progress :

- By focusing on how to make the price affordable to all consumers, the model simulation (using the system dynamics) method shows that the production sector (agriculture) is playing the most significant part, otherwise Indonesia will soon become a major importer.
  - Low rice price will discourage farmers to continue the production.
-





## Topic of Study in Japan

- Aim: to observe the *Practice and Development of Agriculture and Rice Market*
- Relevance of the study:
  - Japan uses a combination of policies and tariffs
  - Japan is facing similar problems, such as significant decline in self-sufficiency, decline in farm area, and human resources (farmers).

## Method

- Desk study: brief history, pattern of development, relevant policies/regulations/institutions
  - Interviews, observation, seminar → How Japan builds the rice market, establish the institutions, the role and rules, and values
  - Build the system thinking
-



## Study Plan in Japan

- Explore from agricultural and market practices and analyze how different kinds of actors interact; identify institutions and role and rules, regulations and values that support the above interaction; identify controversy or resistance, if there is any;
- Lessons will be extracted that are relevant to Indonesia's contexts and practices.

## Expected outcome

- A detailed and rich picture about rice market practice: brief history, institution and regulation
  - A deeper view on how farmer, government, traders and consumers perceive the “sustainability” of rice production and consumption
-



ありがとうございます,  
Terima Kasih,  
Cảm ơn  
Thank you.

*Questions and suggestions are welcome!*

Email address:

[\*\*lilissihombing@gmail.com\*\*](mailto:lilissihombing@gmail.com)

Lab @ Student Room #215 37th Building

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# Study and Research Plan<sup>1</sup>



Anggi Mardiyanto Suparlan

JASSO Short Stay Exchange Student Study Plan Presentation, 24<sup>th</sup> April 2013



**Kyoto University**

*International Environment and Disaster Management*  
Graduate School of Global Environmental Studies



- Self Introduction
- Study Background
- Current Study Topic in Bogor Agricultural University (IPB), Indonesia
- Study Topic in Kyoto University
- Study Plan in Kyoto University
- Expected Outcomes



# Self Introduction<sup>3</sup>

Name : Anggi Mardiyanto Suparlan  
Country : Indonesia  
Duration Stay in Kyoto : 6 months  
Current Affiliation in IPB : Master Student in Department of Landscape Architecture, Faculty of Agriculture, Bogor Agricultural University (IPB)

Supervisor in Kyoto University, Japan :



Prof. Rajib Shaw

Supervisor in IPB, Indonesia :



1. Dr. Syartinilia



2. Dr. Afra D. N. Makalew





# Study Background<sup>4</sup>

Undergraduate Study

: Department of Landscape Architecture,  
Faculty of Agriculture, Bogor Agricultural  
University (IPB)

Laboratory

: Landscape Planning and Design

Study Topic in Undergraduate Study

: Planning of “Pekarangan Landscape”  
with Integrated Farming System



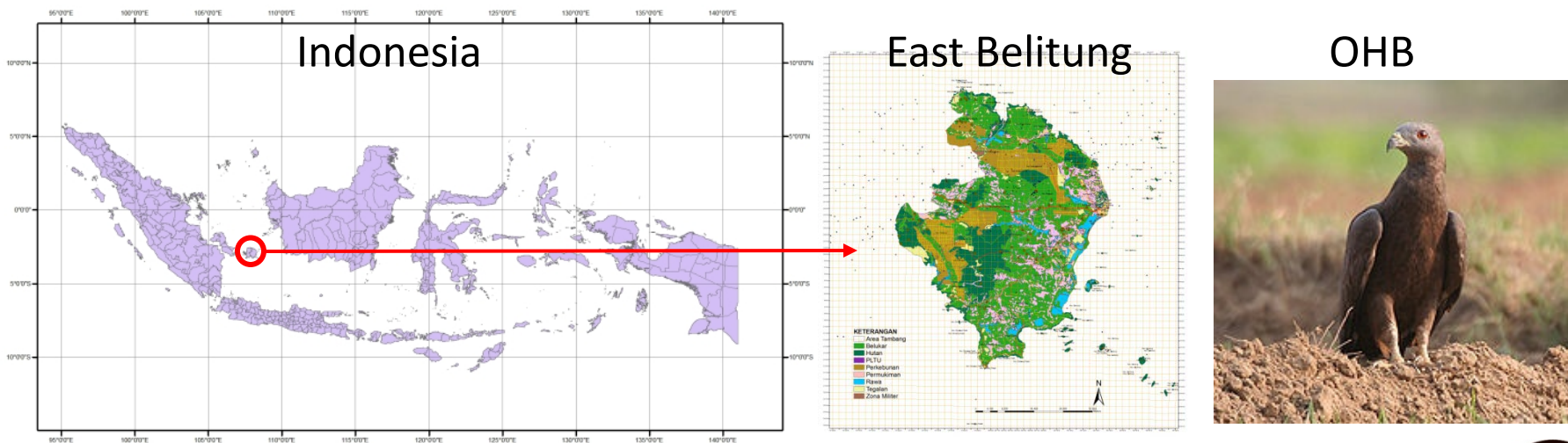
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# Current Study Topic in IPB (1)<sup>5</sup>

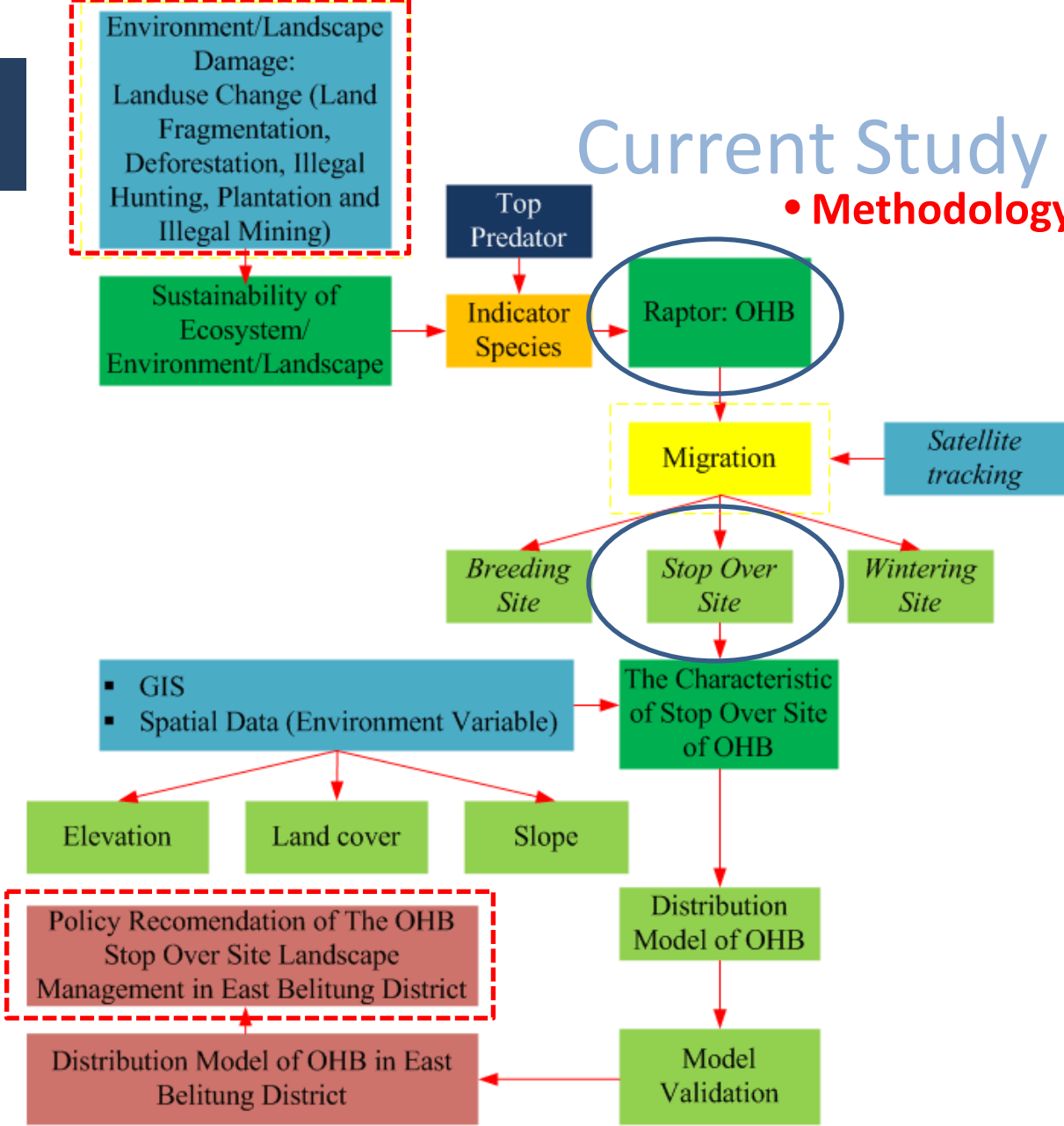
- **Research Title:** Stop Over Habitat Distribution Modelling of The Oriental Honey Buzzards (OHB) (*Pernis ptilorhynchus*) Based on Satellite-Tracking Data in East Belitung District, Indonesia to Face The Global Climate Change”.
- **Main Objective:** To develop the recommendations and policy to manage the stop over habitat of The Oriental Honey Buzzards (OHB) in East Belitung District, Indonesia.





# Current Study Topic in IPB (2)

## • Methodology





# Study Topic in Kyoto University<sup>7</sup>

- Overview of Climate Change and Human-Induced Impacts on Avian Migration.
- **Main Objective:** To identify and analyze the influence of global climate change and local pressures to ecosystem towards the migration of raptors.
- **Why/how my topic will benefit from studying in Kyoto University?**

When talk about global climate change, we compile data, literatures and research from various domain. International Environment and Disaster Management (IEDM) laboratory, Graduate School of Global Environmental Studies (GSGES), Kyoto University provides a wide range of research and publications from various expert studies which will give clearer insight and enrich my study



# Study Plan in Kyoto University<sup>8</sup>

- **Seminars:**
  - Laboratory Seminars:
    - Climate Change Adaptation Working Group: 7<sup>th</sup> May 2013
    - Urban Risk Working Group: 4<sup>th</sup> June 2013
    - Environment/Disaster Education/Learning Working Group: 2<sup>nd</sup> July and 10<sup>th</sup> September 2013
- **Special Seminars:**
  - Questionnaire Analysis : 10<sup>th</sup> May 2013
  - Academic Paper Writing : 17<sup>th</sup> May 2013
- **Literature Review**
- **Paper Publication**



# Expected Outcomes<sup>9</sup>

Develop and writing an overview paper about “Overview of Climate Change and Human-Induced Impacts on Avian Migration in Asia Region”. This will be integrated as part of my master thesis.



Table of Contents by 8<sup>th</sup> May

First draft by 16<sup>th</sup> August

Submission to Journal by the 1<sup>st</sup> week of September



# Thank You Very Much

Think Globally, Act Locally



**Kyoto University**

*International Environment and Disaster Management*  
Graduate School of Global Environmental Studies





Urban Farming activities and the background behind  
it (Indonesia and Japan experience)

Fauzi Mubarak, JASSO Short Course Program

# About My Self

- ▶ I am Fauzi Mubarak, 25 Years Old
- ▶ Under Taking Master degree in Development Study, ITB
- ▶ 6- moth visit in Kyoto University. Under Supervision of Prof. Kosuke Mizuno, CSCES





# History

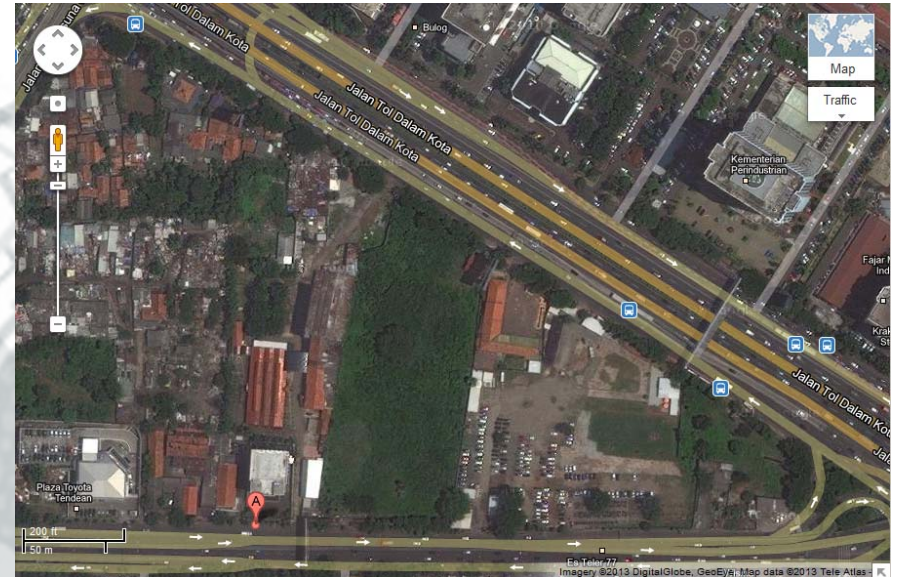
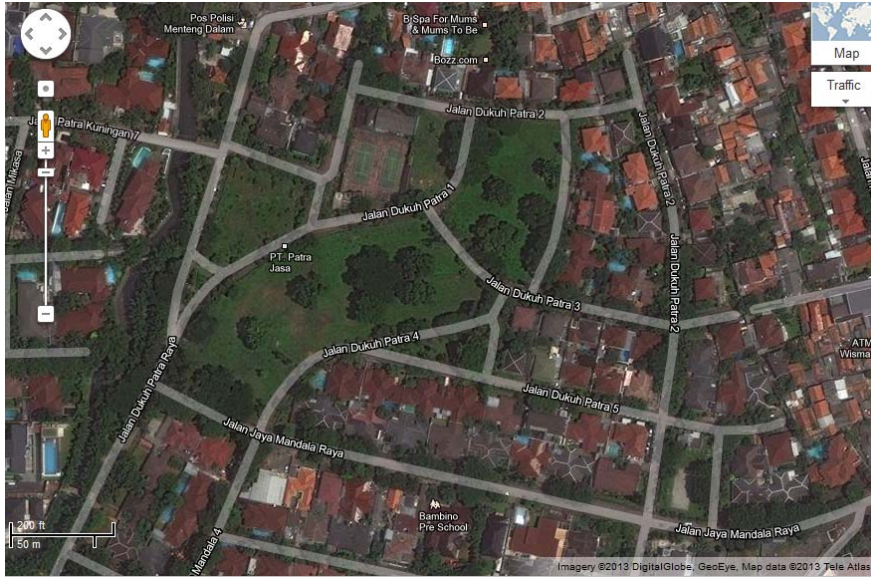
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- ▶ Urban farming activities were initially based on concern about the urban communities they consume agricultural products, where these products have been widely contaminated by chemicals since the time of planting until harvest, that's connected with organic farming concept.
  - ▶ In addition to high-value organic products, urban farming is closely associated with urban food security, green belt areas, vacant land conservation in the city, and open space for the urban people.
- 

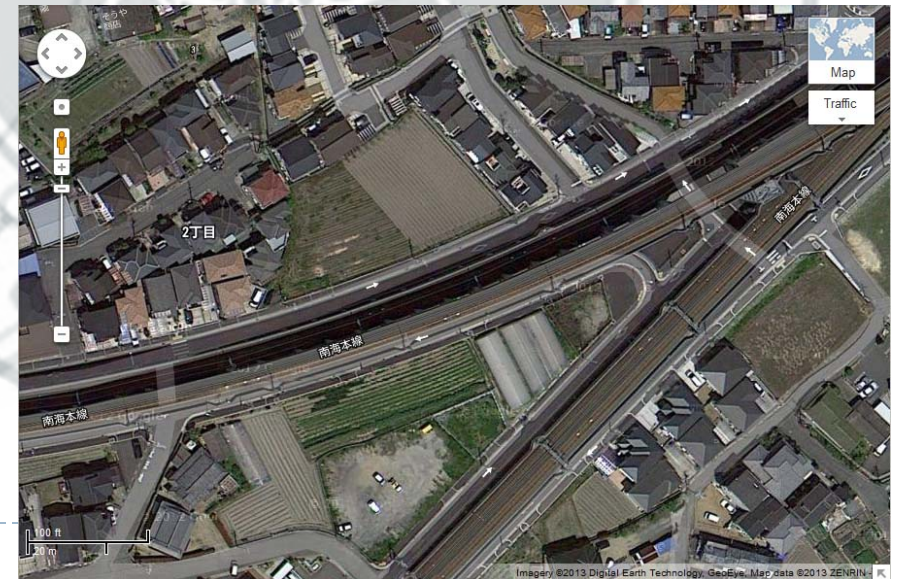
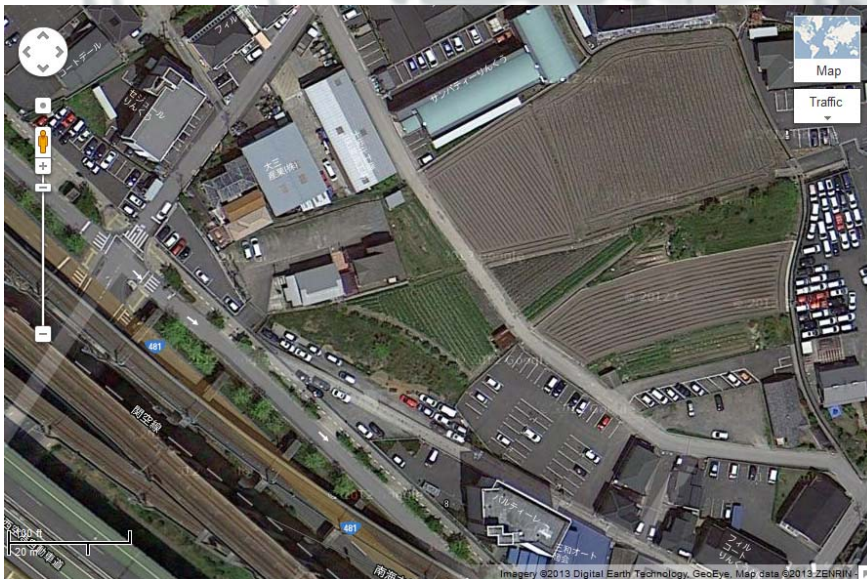




# Jakarta satellite map view (vacant land)



# Japan satellite map view (land used for farming)











**Illustration of Urban Farming movement in Jakarta  
(Indonesia) from “Indonesia Berkebun”**





# Topic Study In Indonesia

- ▶ **General Question:**

In Indonesia has new movement, they called “Indonesia Berkebun” it’s start from middle class community with urban farming as their basic activity idea. What they background want to do this activity? And are they have same concept of urban farming like the other country especially in Kyoto, Japan?

- ▶ **Progress:**

- ▶ To know what the reality of the urban farming activity in Japan (Kyoto) and Indonesia (Jakarta & Bandung)?
- ▶ To know what the community concerns behind their movement to activated “Indonesia Berkebun”



# Topic Study in Japan

▶ Aim :

to take lesson from the Practice and Development of organic product from the urban agricultures in Japan and used land regulation it related with agricultures



# Study Plan in Japan

- ▶ Explore about Urban Farming concepts in Japan (Kyoto), discover the history about urban farming and motive in their activities.
- ▶ Explore about the organic product (from urban farming) situation in Japan, how can Japan manage their organic farming activities, about the regulation; innovation; strategic in the order the be accepted in society.
- ▶ Explore Japan regulation about land use for the agricultures sector actually in the city like the urban farming concept
- ▶ From the study lesson will be extracted that's are relevant to Indonesia's Context



# Method

- ▶ Desk Study : Discover the History, pattern of development, relevant policies/ regulation/ institutions
- ▶ Interviews: How Japan build the farming activities actually in the cities? What the background of the activities farming in Japan? How can Japan developed and maintain their organics agriculture to be accepted in society? How Japan rules about use land for the agriculture?
- ▶ Tracking network of the actor to know who is most responsible to organic agriculture development and land used regulation in Japan

# Out Come Expected

- ▶ A Picture of Urban Farming in Japan
- ▶ A Deep Viewer how Japan developed their Organic Agriculture can be accepted in society, and their concept about Urban Farming and about their regulation
- ▶ A Deep Viewer how Japan maintain their land use for Agriculture; regulation; institution.
- ▶ Learn Japan experience about land use and land zoning
- ▶ Lessons that are relevant to Indonesia's contexts and participates





Terima Kasih

Thank You

Arigato Gozaimasu





# KYOTO UNIVERSITY GSGES SHORT TERM PROGRAMME



# STUDY AND RESEARCH PLAN PRESENTATION

**Student:** Nguyen Thi Thuy An  
**Supervisor:** Prof. Eiji NAWATA

# INTRODUCTION

**Name:** NGUYEN THI THUY AN

From: Hue College of Science, Hue university

The period of study in Kyoto: 6 months



My supervisor in Kyoto → Prof. Eiji Nawata

My supervisor in Vietnam → PhD. Duong Van Hieu

**First study topic:** Research on the management of Biological resources in Tam Giang- Cau Hai lagoon in Thua Thien Hue province

↓  
**Objective**

Assessing the management of biological resources in Tam Giang – Cau Hai lagoon in Thua Thien Hue province



# MASTER'S THESIS

**Study topic:** “Determination of Heavy Metals in Sea Fish and Health Risk Assessment for Hue Consumers”.



objectives

- Investigating the species of fish that were consumed most popularly
- Determine the contents of heavy metals in the muscle of sea fish
- Assess sea fish quality and the health risk for humans



## CASE STUDY:

- To study some species of fish that Hue people eat commonly and some kinds of heavy metals such as: Pb, As, Cu, Cd, Hg
- Study area: inner citadel Hue area (including 4 communes)



# MASTER'S THESIS

## Determination of Heavy Metals in Sea Fish and Health Risk Assessment for Hue Consumers

### **MATERIALS AND METHODS (1/3):**

- **Dietary survey:** A questionnaire-based dietary survey was conducted to about 200 household wives randomly selected from the general population
- **Sample collection:** 4 species of fish were purchased from local markets in inner citadel area in March 2013. Fish were wrapped in aluminum foil, placed in polyethylene bags, and then stored frozen at  $-20\text{ }^{\circ}\text{C}$  until analysis.
- **Sample preparation and extraction:**
  - filleting muscle tissues without skin of individual fish
  - Homogenised subsamples (about 2g) were digested in a  $\text{HNO}_3$  - HCl mixture



## MATERIALS AND METHODS (2/3):

- **Instrumental analysis:** Determination of metals was performed with a ICP-AES (Inductively Coupled Plasma – Atomic Emission Spectrometry)

- **Health Risk Estimation for Fish Consumption:**

→ **Non – carcinogenic Health Effects:** the basic equation for calculating systemic toxicity :

$$HQ = (C \times IR \times EF \times ED) / (RfD \times BW \times ATn)$$

HQ: Hazard ratio

C: Metal concentration in fish (mg kg<sup>-1</sup>)

IR: Fish Ingestion Rate (kg day<sup>-1</sup>)

EF: Exposure Frequency (day year<sup>-1</sup>)

ED: Exposure Duration (years)

RfD: Reference Dose (mg kg day<sup>-1</sup>)

BW: Body Weight (kg)

ATn: Lifetime (Average) (day year<sup>-1</sup>)

$$HI = \sum HQs$$

HI: Hazard Index = sum of the Hazard ratios

## MATERIALS AND METHODS (3/3):

### - Health Risk Estimation for Fish Consumption:

→ Carcinogenic Health Effects: the basic equation for calculating excess lifetime cancer risk is

$$R = (C \times IR \times EF \times ED \times SF) / (BW \times ATc)$$

C: Metal concentration in fish (mg kg<sup>-1</sup>)

IR: Fish Ingestion Rate (kg day<sup>-1</sup>)

EF: Exposure Frequency (day year<sup>-1</sup>)

ED: Exposure Duration (years)

SF: Slope factor

BW: Body Weight (kg)

ATc: Average time (day year<sup>-1</sup>)

# STUDY PLAN IN KYOTO UNIVERSITY

**Topic:** Research on Japanese organic farming as a model for Vietnamese alternative agriculture



## Objectives

- Study on the systems of handling agricultural wastes that Japanese farmers are using for their farming.
- Study on the way they control pests and use pesticides effectively that did not affect consumer's health.
- Learn how the efficiency of current methods that Japanese farmers are operating.



## Case Study:

- Focus on studying Agricultural wastes and Pesticides
- Study area: Kyoto

# **STUDY PLAN IN KYOTO UNIVERSITY**

Research Japanese organic farming as a model for Vietnamese alternative agriculture

## **Research Methodologies:**

- Investigating community: A questionnaire-based survey is conducted to about 20 to 30 farmer households randomly selected from the general population.
- Interview and discuss with experts
- Data analysis

## **Expecting outcome:**

- Find out the most suitable and effective way for handling Vietnamese agricultural wastes and using pesticides and fertilizers

# STUDY PLAN IN KYOTO UNIVERSITY

Research Japanese organic farming as a model for Vietnamese alternative agriculture

## Detailed study schedule:

<div style="text-align: right; padding-right: 10px;">MONTHS</div> <div style="text-align: left; padding-left: 10px;">CONTENTS</div>	April	May	June	July	August	September
1. Study and research plan presentation	24 <sup>th</sup>					
2. Enjoy class						
3. Study at lab						
4. investigating community						
5. Doing reports						
6. Field trip						
7. Achievement presentation						20 <sup>th</sup>



# BENEFITS FROM STUDYING IN KYOTO UNIVERSITY

- There is huge literature sources for studying.
- Receive the large support of experienced professors.
- Contact to new methods for solving agricultural problems in real life and gain experiences in process of reaching sustainable agriculture
- Learn how to carry out a research

# CONCLUSION

Studying in Kyoto university provides a great chance not only for completing my master thesis but also enhancing my background knowledge in my environmental department. Particularly, my current study in my country only is a way of agricultural product's testing because of healthy consumers. My study here, in Kyoto university is an addition for my thesis. In other ways, I will learn how to create safer agricultural products and an environmentally friendly agricultural system.

**THANK YOU FOR YOUR LISTENING!**

# ECOSYSTEM MANAGEMENT BASED ON SOIL AND LANDUSE

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JASSO Short Stay Exchange Student Study Plan Presentation

Pranawita Karina Nursyirwan  
Bogor Agricultural University  
INDONESIA



# About Me

## Pranawita Karina Nursyirwan

- Undergraduate from Land Resources Management- Faculty of Agriculture-Bogor Agricultural University (2011)
- Now taking master course of Landscape Architecture-Faculty of Agriculture-Bogor Agricultural University
- 2<sup>nd</sup> Year of Master Course (3<sup>rd</sup> semester) and about to start research.
- Interested research topic : ecosystem management based on soil and landuse



GSGES short-term scholarship program under supervision  
Prof. Shozo SHIBATA –Laboratory Landscape Ecology and Planning



# Topic Study In Indonesia (plan)

- Various land resource
- Various land use
- Various character
- Various management

Manage the ecosystem based on its soil and land use to be sustainable.

- How land resource can form particular landscape?, in this case agricultural landscape.
- Is culture take a role in agricultural landscape? How big is the role? Are they follow the nature or they form the nature?
- Is there any characterization for agricultural landscape based on land resource?



# Topic Study In Indonesia (plan)

## ➤ Why soil?

Soil is a complex mixture of organic and nonorganic material upon which most terrestrial life depends. The form of soil also connected by its surround area. It means that soil has various type in every place.

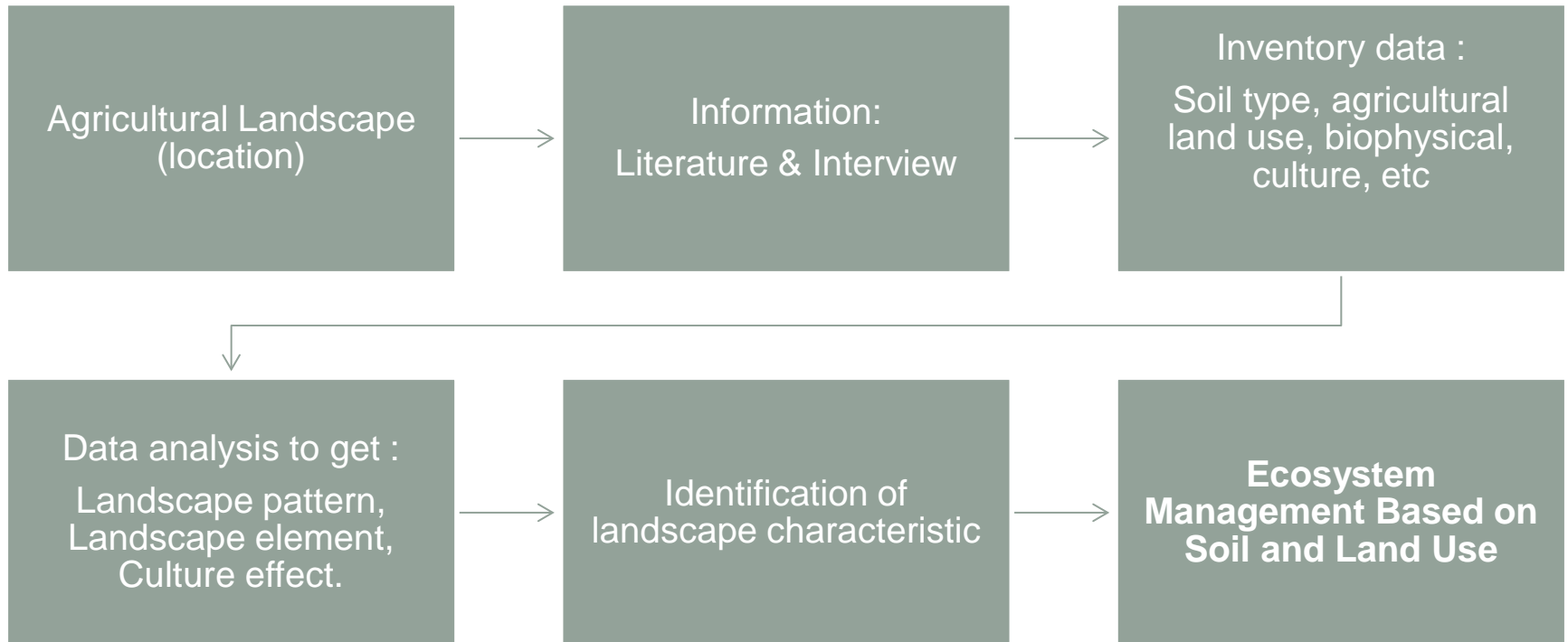


Various soil type in west java

## ➤ Keywords

Agricultural Landscape ☞ Soil Type ☞ Land use (cultural) ☞  
Identification ☞ Characterize ☞ Manage based on characterization

# Framework



# Study Plan in Japan

➤ Topic : Ecosystem Management Based on Soil and Landuse

➤ Aim

- Take Credit from Master Course
- Find agricultural landscape characteristic in Japan
- Enrich characterization of agricultural landscape for my study
- See how nature role for agricultural landscape in japan

➤ Benefit

- By having more various character of landscape agriculture ,the management for ecology can be also applied in various landscape character. The more reference we had the more applicable management me made.

➤ The Expecting Outcome

- A picture of agricultural landscape character in Japan
- How ecology landscape management gone so far in Japan



cảm ơn bạn

Thank You!

Terima Kasih

ありがとうございました

Hatur Nuhun

KAWASARI  
WISATA  
2

