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**Minutes of the
PISAI's KICK-OFF MEETING
8-10 January 2018**

Faculty of Natural Resources, Prince of Songkla University
Songkhla, Thailand

PARTICIPATORY AND INTEGRATIVE SUPPORT FOR AGRICULTURAL INITIATIVE
Songkhla, 2018



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PREPARATION OF THIS DOCUMENT

This document describes the presentations and discussions during the three day kick-off meeting on the Participatory and Integrative Support for Agricultural Initiative (PISAI) project, held from 8 to 10 January 2018. The meeting organized by the Faculty of Natural Resources (FNR), Prince of Songkla University (PSU), Thailand with the support from the Erasmus+ Programme of the European Union.

The meeting was attended by following participants:

- Vice Presidents and Deans at Prince of Songkla University
- Representatives of Thai university partners – KU, CMU, KKU
- European university partners - Montpellier SupAgro, CULS, UHEL, AGRINATURA
- Associate partners -
- Representatives of the National Science and Technology Development Agency (NSTDA), Thailand
- Teaching staff and researchers at Prince of Songkla University



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8. Presentation of module 3: Postharvest, processing and economics for sufficiency and sustainable agriculture by Asst. Prof. Dr. Pornsiri Suebpongsung
9. Presentation of modified module 1: Production by Asst. Prof. Dr. Buncha Chinnasri
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1. WELCOME AND INTRODUCTION OF PARTICIPANTS

Assoc. Prof. Dr. Perapong Tekasakul, Vice President for Research System and Graduate Studies of PSU welcomed all participants to the PISAI KO-meeting and mentioned that it was an honour for PSU to host this meeting. Dr. Perapong stressed that PISAI project pointed out to the sufficiency economy which is focused on the sustainability. The sufficiency economy is a philosophy initiated and developed by His Majesty King Bhumibol Adulyadej of Thailand for long time. The main purpose of this project is the double degree master program among four Thai Universities with a support of European partners. This project would create a benefit for not only the students and the country but also the stakeholders.

On behalf of the President of PSU, he would like to express sincere thanks to everyone who participated in the project. In this regard, Dr. Perapong also expressed his special thanks to all participants for coming to PSU and extended his wishes for a successful meeting.

2. INTRODUCTION OF PARTICIPANTS

Brief introduction of participants was by Asst. Prof. Dr. Chutima Tantikitti, Associate Dean for International Affairs, Faculty of Natural Resources, PSU. There were 40 participants joining the kick-off meeting. The list of participants is in Annex 2.

3. PRESENTATION OF PISAI PROJECT

The PISAI project objectives, main activities, expected output and outcomes and the roles of partners were explained by Dr. Chutima Tantikitti, the project coordinator (Annex 3).

The concept of the PISAI project was based on the king's initiative of the philosophy of sufficiency economy for sustainable agriculture and well-being of Thai people. The logo of the project is appeared in the green colour looked like a number nine “๙” in Thai language which represented his majesty the King Rama 9 and the progressive trend. Inside the logo represented the joined hand from all partners and stakeholders. The duration of this project is 3 years from 15 October 2017 to 14



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October 2020 for 3 years. PSU is the coordinator of the project. There are four key leading agricultural universities in Thailand in different regions covering the whole Thailand: Prince of Songkla University (PSU) in the South, Kasetsart University (KU) in the Central, Chiangmai University (CMU) in the North, Khon Kaen University (KKU) in the Northeast region. The European partners are Montpellier SupAgro (France), University of Copenhagen (Denmark), Czech University of Life Science Prague (Czech Republic), University of Helsinki (Finland) and AGRINATURA. The associated Thai partners include Council of the Dean of Agriculture, Horticulture Innovation Lab Regional Center at Kasetsart University, Agri-Nature Foundation, Lampang Rajabhat University, Dan Anurag Agricultural Community Enterprise, Khuanru Subdistrict Administrative Organization and Chaga-Ngeon Publishing Co.,Ltd.

The project is composed of five work packages (WP) covering preparation (WP1), development (WP2), quality (WP3), dissemination and exploitation (WP4) and management (WP5). Chiang Mai University is responsible for the WP1 to analyse the situation and the key points in sufficiency economy and agriculture sustainable food supply. For the WP2, KU is the leader of this package with all partners involved and contributed in constructing the curriculum structure of DDP within 2-3 months. Four Thai university partners have the same national semester system. The first semester is between August until December and the second semester between January until May. The project is to be able to launch and finish up for the first batch of students who have to be enrolled into the next academic year i.e. August 2018. The modules and the guideline should be set up in order to select and enrol the students into the program before August 2018. It is expected that the first batch of the student can be finished the DDP by the end of the project. PSU will design the online application for all partners. Partners agree to set up the selection committee composing of representatives from each Thai university. Every partner has to take part in this WP. The WP3 is responsible by SupAgro and UCPH for assessment of the developed program and activities as the part of quality assurance. The WP4 is jointly among KKU and CULS for the dissemination and exploitation of the project. The final conference in the last year by KKU as a host of conference is the output of the of this dissemination WP of the project. All students will join the conference and give the presentation of their own work. The WP5 is the management of the project which is responsible by PSU.



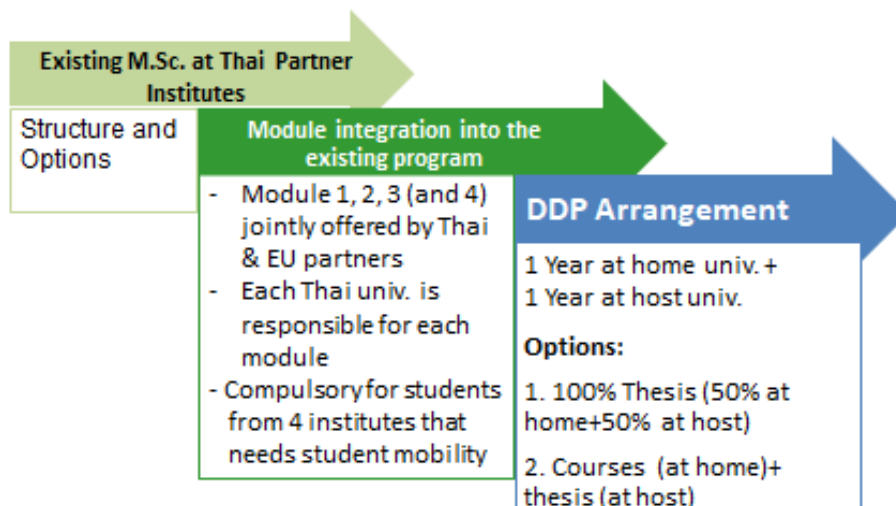
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The indicators of progress include collaborative DDMP between partners emphasizing in PISAI, four modules and practical parts integrated in the thesis research, equivalence of modules to the European credit system (ECTS) and one practical training organised. The staff mobility will be 3 for each Thai university partner.

The four Thai universities will discuss the details and component of DDMP together in March meeting at CMU.

4. PRESENTATION OF THE TENTATIVE COLLABORATION ON DOUBLE DEGREE PROGRAM (DDMP)

Collaborative double degree master program under PISAI project will be based on the existing master program in agriculture at PSU, KU, CMU and KKU as shown in the diagram below.



The initiative and uniqueness is the integration of modules that cover the agricultural supply chain and practical approach teaching techniques offered by EU and Thai partners.

Students can be enrolled into either the research program (36 Thai credits) or coursework (n credits according to each univ.) and research program (at least 12 Thai credits according to Ministry of Education) at home university and spend the practical research duration at the host university for the second year. A student will be co-supervised by 2 partner universities with an EU partner on the thesis committee. The thesis examination will be attended by the thesis committee and an external examiner from government or private sectors.



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5. PRESENTATION OF THE COLLECTIVE KNOWLEDGE/ANALYSIS ON THE SUFFICIENCY AND SUSTAINABLE AGRICULTURE

13.1 The collective knowledge/analysis on the sufficiency and sustainable agriculture by Chiang Mai University is in Annex 4

5.2 The collective knowledge/analysis on the sufficiency and sustainable agriculture in Europe by Dr. Didier Pillot is in Annex 5.

6. PRESENTATION OF 4 MODULES RELATED TO SUFFICIENCY AND SUSTAINABLE AGRICULTURE BY THAI PARTNERS UNIVERSITIES

6.1 Module 1: Sufficiency and sustainable agriculture production, Kasetsart University.

KU drafted out the contents of module 1 covering smart agriculture for plant production (includes the history, development, current and future technologies and perspectives in crop), animal and fishery production, and farm mechanics, plant protection and technology transfer. The presentation is in Annex 6.

6.2 Module 2: Production environment for sufficiency and sustainable agriculture, Khon Kaen University

KKU drafted out the contents of module 2 covering general knowledge of agriculture in northeastern Thailand, sustainable animal and crop production, soil ecology, biodiversity and quality as well as organic crop protection for sustainable agriculture, and moving local agricultural products from self-sufficiency production and household consumption to market. The presentation is in Annex 7.

6.3 Module 3 : Post harvest, processing and economics for sufficiency and sustainable agriculture, Chiang Mai University

CMU drafted out the contents of module 3 covering value chain management in agribusiness under sufficiency economy philosophy (SEP), farmer organization and institutional role in supporting SEP, and food quality management and certification. The presentation is in Annex 8.



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6.4 Module 4 : Field attachment, Prince of Songkla University

This module is optional and will be carried out in the field in attachment with a farmer operation or a group of famers /co-operative. It is intended for the students to learn from the hand-on experiences in the real operation.

7. GROUP DISCUSSION FOR MODULE CONTENT

The working teams for module development discussion in table below:

Module	Scope	Working Team
1	Agricultural production	KU, SupAgro, UCPH , PSU
2	Production environment/ecosystem for sustainable agriculture	KKU, IRD, SupAgro, UHEL, PSU
3	Postharvest, primary and industry processing and marketing	PSU, CULS

Members of Group 1

KU: Dr. Buncha Chinnasri, Dr. Poonpipop Kasemsup, Dr. Nattakarn Nitayapat
SupAgro: Dr. Didier Pillot
UCPH: Dr. Didier was responsible for UCPH task.
PSU: Dr. Krajana Tainchum

Members of Group 2

KKU: Dean of KKU (Dr. Monchai Duangchinda),
Dr. Suphat Isarangkool Na Ayutthaya
IRD: Dr. Alain Brauman
UHEL: Dr. Heikki Hokkanen, Dr. Ingeborg Menzler-Hokkanen
PSU: Miss Thapanat Phenkmak

Members of Group 3

CULS: Dr. Petra Chaloupkova, Dr. Olga Leuner
PSU: Dr. Chutima Tantikitti, Miss Rungrat Saeyang

8. FIELD VISIT TO FARMS/FARMERS ORGANIZATION

A visit to organic farms by PISAI team took place on January 9, 2018. The main objectives of the trip were to meet with local entrepreneurs have an overview of ongoing production activities and discuss on overall progress and success factors.

1) Name of Entrepreneur: **Ms. Jeerawan Tasara (Figure 1A)**

Address: 53 Moo 4, Ta Kam Sub-district, Hat Yai, Songkhla, Thailand

Issue	Details
Production scale	Family business
Products	Bitter melon, Luffa, Cucumber, Chinese Kale, Rice, Coriander, Chicken, Cow, Chili pepper
Total area	3 Rai (0.48 Hectare).
Years of operation	1 year
Innovation	Energy saving equipment by modified bicycle for watering plants

2) Name of Entrepreneur: **Mr. Throngyot Suwannanon (Figure 1B)**

Address: Fresh farm, 36 Chumsang 3 Road, Baan Pru Sub-district, Hat Yai , Songkhla, Thailand

Issue	Details
Production scale	Family business
Products	Salad vegetable, Chinese Kale, Tomato
Total area	0.5 Rai (0.08 Hectare).
Years of operation	15 year
Innovation	Converting hydroponic system to table plantation and rotation planting Sprinkle system by automate control



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3) Name of Entrepreneur: Mr. Kumnung Soisimak (Figure 1C)

Address: 76/3 Moo 2, Deeluang sub-district, Satingpra District, Songkhla, Thailand

Issue	Details
Production scale	Family business
Products	Chinese Kale, Morning glory, Celery, Holy Basil, Thai Basil, Chinese, Broccoli, Chili pepper, Lemon, Banana, Watermelon, Asian palmyra palm and Coconut
Total area	1 Rai (0.16 Hectare).
Years of operation	10 year
Innovation	Green house design, fertilizer and watering system

9. MODIFIED MODULE PRESENTATION

9.1 Module 1: Production module – by Kasetsart University (Annex 9)

The module was divided into six sessions covering about three weeks as follows:

The first session will be 2-3 days. The objective of this session is to break the ice, to make the students to know each other by introduce themselves together with the introduction of the program details. To prepare students to go to the fields. However, there should be some lecture about general information in agriculture in this session.

The session 2 will be 3 days in the field/village. The students will be going to the village, doing some landscape analysis, historical surveys and focus group discussion. The objective of this session is to help students to identify the diversity of the natural conditions of agriculture. The students will be able to identify the cropping system and also the problem in the village.

The session 3 will be at the university. In this session, the student will be given the lecture on important and necessary knowledge, especially the knowledge of climate, soils and fertility and water management. The student will be given the lecture about research question, cropping system and animal breeding system assessment.

The session 4 will be in the field about 1 week. In this session, student will be able to do a survey, an interview and discussion and some analysis. The objective of this session is to help the student to characterize and assess various cropping system and animal rearing system in the area. The student will get the research questions along a research plan.



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The session 5 will be at the university for 2 days after coming back from the village. The students will finalize the analysis, prepare the feedback and final report with the presentation of the results.

The session 6 will be in the field for 1 day. The objective in this session is to let the student to talk with the people in the village and will invite the government section to give more information about agriculture development in the area.

Comments: - The total period is 19 days, there should be the weekend in the module.

– Ice-breaking activity among students should be included in Module 1, 2 and 3.

9.2 Module 2: Environment – by Khon Kaen University (Annex 10)

The module was divided into three main topics in three weeks: animal production, plant production, and soil and environments. The module focuses on the situation in Northeast of Thailand. Students will be given the necessary lecture and going to the field in each session.

The first week is focused on the ecosystems service for sustainable agriculture in a challenging environment. In this session, students will be given the lecture about eco-stacking, integrative soil quality assessment, functional biodiversity, water cycling and irrigation system of farmer. For the field visit, students will be going to organic or sustainable farm, integrated farming system and general farming system. The students can collect some soil samples and doing the lab analysis at the university.

The second week is about plant production and will be at the university. This session covers knowledge on sustainability, challenge issues on sustainable agriculture in the Northeast of Thailand, a threat for biodiversity and some cases studies between organic and conventional agriculture which can be linked with the first week. The students will be working more on the literature review and linked to the case studies.

The third week is about utilizing genetic resources for sustainable agriculture both in terms of crop and animal production. In this session, the students will be given some lecture together with the field visit for animal production in the university farm or private sector. In addition, students will have to give presentations 2 times, one presentation is in first week and in the third week.

Comments: – For the animal production, it should be a case study.



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9.3 Module 3: Value chain management – by Czech University of Life Science (Annex 11)

The name of the module was changed to value chain management. The module will be three weeks including the weekend covering the knowledge about value chain management, field practice training and data interpretation/processing and presentation.

At the beginning, there will be introduction of participants with icebreaking activities and introduction to module contents. The lecture in the first week is about value chain management, postharvest management, food quality and marketing. The pattern of lecture will be active learning with two-way communication in the class. The field trip to Royal Project station is prepared for the student in this week. One important part is about proposal preparing. The student will be given some lecture about literature search, problem formation and sampling method and tools. After that the student will be divided into the groups and doing the workshop together to prepare some topic and analysis method.

The second week is about data collection and analysis which can be one week. For the last week, the student will be given the lecture about scientific writing and presentation techniques at the beginning of the week to improve the presentation skill. Each group of the student will prepare the poster and PowerPoint for presentation along with the final report in the form of manuscript. The group discussion and final presentation will be held on the last day of the module. To increase the motivation of the student, there will be an award certification ceremony for closure of the module.

This module emphasize on the field training (35 hours) and team work with group discussion (17.5 hours and 16.5 hours). As for gaining knowledge away from the classroom, the 10 hours field trip in Royal Project station in Chiang Mai province is taken in the first week. During the module period, the student will spend 21 hours on lecture for general knowledge.

Comments:

First week: Aspects of value chain management

- Introduction of participants should be in the beginning or first period of all modules.
- Only the principle of knowledge for the lecture in each subject.
- For the field trip to the Royal Projects, in this module, the students will learn about the postharvest management, food quality control system and standard.
- Should include discussion for the proposal preparation along with scientific (postharvest and processing parts) and business method (marketing and consumer behavior).



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- There is a different strategy among local, national and international market level. The level of the marketing in principle for a lecture should be clarified.

Second week: Field practice

- Should have some real experiences by taking students to the department store or local markets to learn about the marketing and product offering in the markets.
- Inviting a businessman and successful farmers to share their experiences and give the inspiration about marketing to the students.
- For marketing practice, a topic about consumer behavior can be exercised by preparing groups for students to do mini-research by identifying a clear topic in the first week.

Third week: Data interpretation/processing and presentation

- Can have the VDO pitching presentation for 1 min (Dr. Ingeborg)
- This module should be in the beginning of the first semester of the students' enrollment.

10. CONCLUSION ON MODULE DEVELOPMENT

1. PSU is responsible for the template of module designs adapting from the format of the module 3. The module contents should include:

- Learning objective
- The activity in each module should be week by week both in terms of group activity or divided activity.
- Each module may have the economic or marketing contents, but a suitable proportion between production, economic and training for each module needs to be considered.
- Preparation period before the module starts is needed in each module.

2. Every module should have the same duration for three weeks or 21 days including the weekend.

3. The revised 3 modules resulting from the communication within each group will be returned to PSU which will then be circulated to everyone for suggestion and comments for fine-tuning the contents and activities *by mid February 2018*.

4. The module 1, 2 and 3 were renamed as below:

Module 1 – Agricultural production

Module 2 – Agricultural Environment

Module 3 – Value chain management



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5. Launching period

8 – 29 August 2018 -

Module 3 (Value chain management) will firstly be launched at CMU. CMU and CULS will manage the suitable time for sending staff from the CULS to join the module at CMU.

November 2018 -

Module 2 (Agricultural environment) at KKU

March 2019

Module 1 (Agricultural production) at KU.

If KU would like to change the date, KU have to inform PSU.

6. Each Thai university partner will send one staff to participate in each module for about 5 - 7 working days. The staff can be the same person or different persons who will be in charge and help carried out the module at their own university.

7. The preparation period that is needed before starting each module will depend on the agreement between the pair university partners which can be through the online communication.

8. The module 4 is about field attachment. PSU can arrange as the optional for the student to attend the field or a seminar event.

9. Deadline for module development

Approved version should be done by March 2018.

Revised version for each module should be done by mid February 2018.

Circulate the revised version to all partners by mid February 2018.

Final version for each module should be done by mid March 2018.

10. Each module may consider including technology transfer to the rural areas during the program or at the end of the program. This will be a channel for the consortium to submit an application for assistantship support from National Science and Technology Development Agency (NSTDA), the main research funding organization in Thailand.

11. DISCUSSION ON IMPORTANTS ISSUES FOR THE DDMP-PISAI OPERATION

Learning objectives for the students of DDMP

For the modules being developed, there should be learning objectives specified in each module which will be included in the module template. The learning objectives of students under the DDMP will be discussed during the workshop at CMU in March 2018.



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Research is the integral part of the DDMP under PISAI project. Thai university partners will discuss on the scope of the potential research topics at CMU in March 2018. The list of the research fields should be should be announced on the webpage/facebook/email by the end of March 2018. PISAI project will have a total of 32 students for two batches or 16 students for each year. Therefore, there should be at least 16 research topics for each year. Each Thai university will purpose the potential research topic for 4 topics for each year (CMU 4 topics, KU 4 topics, KKU 4 topics and PSU 4 topics). Each student should have double supervisors in Thailand plus in Europe. The supervisors at each Thai University should be involved in 8 research topics. Each Thai university partner should identify at least 4 supervisors, i.e.one supervisor can take 2 topics.

European student involvement

- Eight students from the UCPH will participate only in the second batch.
- The duration of participating in each module is 21 days for one student. The number of the student is 2 students for each cohort which will be a total of 4 students /year.
- The summary of the EU student involvement as listed below:

Module	Module name	Duration	University	Total number of student/2 cohorts	Time line
Module 1	Agricultural production	21 Days	UCPH	8	March 2019 – March 2020
Module 2	Agricultural environment	21 Days	SupAgro	4	November 2018 – November 2019
Module 3	Value chain management	21 Days	CULS or UHEL	4	August 2018- August 2019
Module 4	Field attachment	21 Days	CULS or UHEL	4	To be identified

- PSU will send a form to all European partners to fill in for the participation of students in a module and the time line. The suggestion is not all student from EU go to one university in Thailand, they should be separated to all 4 Thai University partners.

- It was agreed to combine the guest lectures provided by European partner with the module implementation.



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Timelines for project's activities (Annex 12)

Work Plan – Year 1

1. Assessment study of the key elements and lessons to be learned of practical sustainable production of different agricultural products at small, medium and large scales in Thai and European environments.
 - On the process to preparing the report, provided by CMU and Dr. Didier.
2. Identifying and making a network with potential private/co-operatives, NGO and government offices for student thesis collaboration
 - Every partner can be start to making the network.
3. Organizing a workshop on "Successful Participatory Sustainable Agricultural Production" and defining the learning objectives.
 - The workshop will be done in March 2018 at the CMU.
 - This workshop could be the group meeting among Thai university partners to discuss about the recruitment, selection, criteria of the student as well as the research topics.
4. Provision of needed equipment: Field equipment
 - Each Thai university partner will get the budget for the field equipment about 10,000 €.
 - Purchasing should be done by October 2018.
 - Each Thai university partner should send the quotation and specification to PSU by April 2018.
5. Construction of 4 modules and curriculum of DDMP-PISAI emphasizing applicable thesis research
 - The deadline for the module construction is by March 2018
6. Prepare program guidelines, quality assurance and criteria for student selection
 - PSU will circulate the complete version to all partners after discussing among Thai partners in March.
7. Preparation of on-line application
 - PSU will design and prepare the online application system for all partners.
8. Orientation for private sectors, related agencies and students for collaborative thesis research study
 - Already started working on this.
9. The created modules and program structure assessed by external reviewers including professionals
 - The reviewers can be the Thai experts, UCPH (Thilde) and Dr. Didier
10. Development of Guideline for Co-supervision between the two Thai universities graduating the students
 - The guideline will be done after discussing among Thai partners in March.



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11. Selection of students according to set rules and qualification
 - The time line for student selection is in July 2018
12. Enrolment of DDMP PISAI (1st cohort)
 - The enrolment of the first batch students should be in August 2018

Work Plan – Year 2

1. Steering committee meeting for following up the action plan
 - The meeting will be done via Skype.
2. Faculty and staff training for efficient and effective program delivery and student supervision
 - 3 Thai teaching staffs for each Thai university to go to Europe for training for 7 days at any point in time during time line (15 October 2017 – 14 December 2018)
 - Each Thai university should select the suitable time and identify the name of Thai staffs and the name of the host in Europe.
 - The first priority for the host university in Europe would have to be the consortium partners.
 - The Thai staff can go to other EU university which is not in the partner list, but should have the good reason.
3. Running DDMP-PISAI: the first cohort of students and selection of thesis topics
Questions and comments related to the academic issues:
 - The qualification and graduation for DDP students under Thai Ministry of Education's regulations
 - Publication is needed either in international journals or the peer reviewed full paper in a conference proceedings. The journals can be the ISI or Scopus index.
 - CMU will check with the university for regulations about publication in the proceedings.
4. Identification and appointment of EU partner as thesis committee and review the thesis progress
 - Each Thai university has to contact the potential partners and the host.
5. Organize modules and practical courses jointly with European partners and their students (KU & Copenhagen with Sluse project for module 1, KKU and IRD for module 2, CMU & PSU and CULS for module 3) – As discussed at kick-off meeting
6. Guest lectures provided by EU partners and representatives of enterprises at Thai participating HEIs (1 Day at Thai Partner Univ.)
 - It was agreed to combine the guest lecture with the module activities.
7. Thai students to EU program universities (CULS)
 - Thai students go to the EU universities partner for 7 – 10 days, responsible by CULS
 - The suitable time should be in the middle of the study after one year full for studying. During the 15 August 2019 – 14 October 2019.
 - CULS will organize the program for Thai students with the training about communication and presentation techniques and writing the paper.

- The student should have opportunity to participate study in the scientific events on the topic related with their research by this period.
 - It was agreed to set the schedule in September 2019.
8. Enrolment of DDMP PISAI students (2st cohort)
- The second batch of the student will enroll for studying in DDMP program during August 2019. Therefore the application and selection processes will be during April-July 2019

Work Plan – Year 3

1. Steering committee meeting for following up the action plan
 - The meeting will be done in combination with the annual meeting.
2. Organize modules and practical courses jointly with European partners and their students
 - Following the same schedule as set for the first cohort..
3. Running DDMP-PISAI:
 - On-going activities
4. Annual Progress Meeting on Agricultural Sustainability and selection of the best project as a learning model for others
 - The student have to give a presentation and the best practices will be selected
5. Defense of Master Thesis that evaluated by external reviewers from one of the European partners
 - The student will have the defense of thesis by March - April 2020.
6. Thai students to EU program universities (CULS)
 - Second batch of student to go to Europe.
7. Employment assessment of the first batch of graduates (tracer study) (KKU & CULS) ;
 - Need to find the method how to assess the employment situation of the student.
 - At the end of year three, the student of the first batch just finished the study. The idea would be a few weeks after they finish to get the information about their job or career in terms of employment.
8. Guest lectures provided by EU partners and representatives of enterprises at Thai participating HEIs (1 Day at Thai Partner Univ.)
 - It was agreed to combine with the module for the second run.
9. Promotion of the innovative DDMP-PISAI in cooperation with farmers and private sectors in the supply chain and neighboring countries.
 - The dissemination and exploitation to introduce the project in the neighboring country which can be one of the ASEAN countries.
 - In terms of the extension and dissemination of the master program under PISAI project, it should be open to recruit students from neighboring countries like Myanmar and Cambodia.
10. Building and offering practical extension courses (at Thai universities)



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- Each Thai university will have at least one extension course to the outsiders for example, a group of the farmers.
- 11. Publication of project outputs in media, newsletter, scientific meetings, different forms, live video on Facebook
 - This should be done on a regular basis by every partner
- 12. Final Project Conference to disseminate research and project outputs (at KKU)
 - KKU will host the final conference with the approximately at least 100 participants, including 32 students from PISAI.
- 13. Preparation of reports
 - The date to submit the report is by 14 October 2020.

EU partners in the key activities

EU partners involved in the key actions below:

- Teaching activities in the modules which combined with the guest lecture activity
- Review of the modules and DDMP program
- Joint supervision: Between Thai partners, Between Thai partners and EU partners

The potential co-supervision of Thai and EU partners should be identified as whom will be involved in the student research in long term (about 3 years).

- Dissemination of the program
- Hosting Thai teaching staff as indicated in the project

Student recruitment and selection

- This should be finished before August 2018.

12. MANAGEMENT AND QUALITY ASSURANCE ISSUES

(The presentation is in Annex 12)

12.1 PISAI consortium and management committee (PCMC)

- The consortium and committee are all partners (not include the associated partners).
- As the regulation of Erasmus+, the partnership agreement has to be signed by all partners. PSU will send out the draft of partnership agreement to all partners after KO-meeting and the grant holder meeting in Brussels, the soonest within first week of February 2018.



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12.2 MOU between Thai partners for the DDMP

- The MOU should be signed among Thai university partner. PSU will develop the draft and circulate to all Thai university partners. After revised and adjusted by partners, PSU will send the final version to each Thai partner for signing by the president of the university.
- Thai partners should return the draft of MOU back to PSU within one month.

12.3 Logistics and financial management

- The budget and funding management is according to the regulations of EU. The budget will be on the actual activity.
- Each Thai university will have a budget for field equipment about 10,000 Euro. The details were mentioned above in the Work plan –Year 1.
- The budget for the subcontracting cost about 1,000 Euro per one Thai university. This budget can be used as publication or document. PSU will send the certain definition to Thai partners.

12.4 Project meeting and communication platform during the project lifetime

- The projecting meeting via on-line application will be organized every two months.

13. CONCLUSIONS AND RECOMMENDATIONS

- The annual progress meeting together with the steering committee will be held in Bangkok after completing module 1 at KU in 2019.
- A statistic course of about 2-5 days should be arranged for the students.



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ANNEX



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ANNEX 1



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KICK-OFF Meeting



Participatory and Integrative Support for Agricultural Initiative

8-10 January 2018

Faculty of Natural Resources, Prince of Songkla University

Sunday 7 January 2018

All day Arrival of the participants
20.00 Dinner

Monday 8 January 2018

8.30 Registration

9.00 Welcome and Introduction of Participants

- Opening address: President, Prince of Songkla University
- Brief introduction of partners

9.30 Presentation of PISAI project

- Objectives
- Main Activities
- Outputs and outcome
- Roles of Partners

10.30 Coffee break

10.45 Presentation of the Tentative Collaboration on Double Degree Program (DDP) Between Partners and Discussion for the Best Structure

12.00 Lunch

- 13.00**
- **Presentation: The Collective Knowledge/Analysis on the Sufficiency and Sustainable Agriculture by Chiang Mai University**
 - **Presentation: The Collective Knowledge/Analysis on Sustainable Agriculture in Europe by Dr. Didier Pillot**
 - **Presentation of 4 Modules related to Sufficiency and Sustainable Agriculture by Thai Partner Universities**

Module 1: Sufficiency and Sustainable Agriculture Production
Kasetsart University

Module 2: Production Environment for Sufficiency and Sustainable Agriculture
Khon Kaen University

Module 3: Post Harvest, Processing and Economics for Sufficiency and Sustainable Agriculture - ***Chiang Mai University***

Module 4: Field Practices - ***Prince of Songkla University***

15.00 Coffee break



Monday 8 January 2018 (Continued)

15.15	Group Discussion for the Module Contents and Involvement of European Partners for the Best Module Design
16.30	Presentation of Modified Modules by Each Group
17.00	Conclusion for the Modules
18.30	Dinner

Tuesday 9 January 2018

8.00 – 17.00	Field Visit to Farms/Farmer Organization in Songkhla Province
18.00	Dinner at the Songkhla Lake

Wednesday 10 January 2018

9.00	Discussion on the following issues <ul style="list-style-type: none">• Contents to fulfill the modules after returning from field visit• Defining Learning Objectives for the students of DDP in the area of Sufficiency and Sustainable Agriculture• European student involvement
10.30	Coffee Break
10.45	Continued Discussion <ul style="list-style-type: none">• Timeline for Project's Activities• Student Recruitment and Selection• Joint-Supervision: Between Thai Partners, Between Thai Partners and EU Partners• Guest Lectures by EU Partners
12.15	Lunch
13.15	Management and Quality Assurance Issues <ul style="list-style-type: none">• PISAI Consortium and Management Committee (PCMC)• MoU between Thai Partners for the DDP
15.00	Coffee Break
15.15	Management and Quality Assurance Issues (Continued) <ul style="list-style-type: none">• Logistics and Financial Management• Project Meeting and Communication Platform During the Project Lifetime
17.00	Conclusion

Thursday 11 January 2018

All day	Departure of the participants
----------------	--------------------------------------



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ANNEX 2


The list of Participants of Kickoff Meeting PISAI Project
January 8, 2018 08.30 - 17.00
Faculty of Natural Resources, Prince of Songkla University


No.	Project partner	Name of the participant
1	Kasetsart University	Asst. Prof. Dr. Buncha Chinnasri
2	Kasetsart University	Assoc. Prof. Dr. Poonpipop Kasemsup
3	Kasetsart University	Asst. Prof. Dr. Nuttakarn Nitayapat
4	Chiang Mai University	Asst. Prof. Dr. Pornsiri Suebpongsung
5	Chiang Mai University	Dr. Sukit Kanjina
6	Khon Kaen University	Asst. Prof. Dr. Supat Isarangkool Na Ayutthaya
7	Montpellier SupAgro	Dr. Didier PILLOT
8	Institut de recherche pour le Development	Dr. Alain Brauman
9	Czech University of Life Science	Dr. Petra Chaloupkova
10	Czech University of Life Science	Dr. Olga Leuner
11	University of Helsingis	Prof. Heikki Hokkanen
12	University of Helsingis	Dr. Ingeborg Menzler-Hokkanen
13	Lampang Rajabhat University	Dr. Tiparat Tikapunya
14	Council of the Dean of Agriculture	Assoc. Prof. Dr. Monchai Duangjinda
15	Chaba Ngeon Publishing Co., Ltd	Mr. Sookasame Jarupong
16	The National Science and Technology Development Agency	Ms. Viraporn Mongkolchaisit
17	The National Science and Technology Development Agency	Ms. Nuchjaree Pisamai
18	The National Science and Technology Development Agency	Ms. Kunchana Dumrongchai
19	Khuanru Subdistrict Administrative Organization	Mr. Than Chunnual
20	Dan Anurag Agricultural Community Enterprise	Mrs. Pranee Kongchuay



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ANNEX 3


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PISAI

Participatory and Integrative Support for
Agricultural Initiative

Kick-off Meeting
8-10 January 2018
Faculty of Natural Resources, Prince of Songkla University

Co-funded by the
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About the Project

Application Reference Number:
586157-EPP-1-2017-1-TH-EPPKA2-CBHE-JP


Application Title: Participatory and Integrative Support
for Agricultural Initiative


Coordinating Organization : Prince of Songkla University, Thailand

Duration 3 years: 15 October 2017 – 14 October 2020

Grant Amount: 865,865 Euro





Coordinator: Asst. Prof. Dr. Chutima Tantikitti

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Partners

Thai University

-  Prince of Songkla University
-  Kasetsart University
-  Chiangmai University
-  Khon Kean University

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European Partners



	MONTPELLIER SupAgro - France
	University of Copenhagen - Denmark
	Czech University of Life Science - Czech Republic
	University of Helsinki (UHCL),- Finland
	European Alliance on Agricultural Knowledge for Development (AGRINATURA)

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Associate Partners

Active in cooperation with small holder and local farmers and governmental sectors that will be helpful in providing study sites, experiences, know-how and valuable advice.



-  Council of the Dean of Agricultural Science
-  Horticulture Innovation Lab Regional Center at Kasetsart University
-  Agri-Nature Foundation
-  Lampang Rajabhat University
- Dan Anurag Agricultural Community Enterprise
- Khuanru Subdistrict Administrative Organization
- Chaba-Ngeon Publishing Co., LTD

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Background of the Project

The concept and framework of country development under the National Economic and Social Development Plan has been derived by formally adopting




The King's Initiative of the "Philosophy of Sufficiency Economy" for sustainable agriculture and well being of Thai people.

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Background of the Project

This philosophy places "people at the center of development," and promotes "balanced development" in all aspects

- 1) Driving knowledge and wisdom of farmers
- 2) Developing a cooperatives system e.g. strengthening cooperatives and farmer groups, alternative market mechanism, value adding and increasing productivity by cooperatives' businesses, farmer groups, and small & micro community enterprises
- 3) Developing "Smart Farmers" to help farmers produce on-demand products with essential knowledge
- 4) Promoting and conserving Thai local wisdom and traditional lifestyles by training farmers living in land-reformed areas
- 5) *Persuading new generations into the agriculture sector by providing opportunities for agriculture-related education, technology transfers and knowledge management.*

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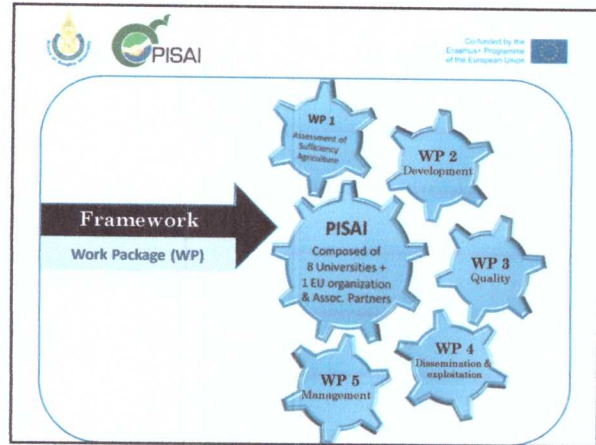
Initiative and Unique Setup


- the graduates will be competent in the agricultural sectors either with the industry or self-employment.
- Have a strong connection with farmers in the private sector.
- The insertion of practical research and modules into curricula of the study programme


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Specific Project Objectives:

- Address the commitments on self reliance and agricultural sustainability for future food supply, the concept developed by King Bhumibol Adulyadej
- Create and offer a DDMP emphasizing “Participatory and Integrative Support for Agriculture Initiative” (PISAI) by four Thai leading agricultural universities in collaboration with Thai agricultural networks
- Organise co-supervised DDMP PISAI students’ research between Thai and European partners.
- Internationalize the HEIs, the developed collaborative program and the graduates’ profile through the collaboration and contribution from experienced European partners will have a multiplying impact on adoption by ASEAN and other countries
- Develop a mutual recognition framework of quality assurance between the Thai and European M.Sc. degrees





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WP1: Preparation (CMU)

Assessment of the Key Elements in Sufficiency Economy and Agriculture Sustainable Food Supply



- 1.1 Assessment of the key elements and knowledge needed for practical sustainable agricultural production in Thai and European environments
- 1.2 Identify and making a network with potential private/co-operatives, NGO and government offices for students' research collaboration
- 1.3 Organizing a workshop on "Successful Sustainable Agricultural Production" aiming at defining the learning objectives of DDMP PISAI with the professional organisations


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WP2: Development (KU)

Curriculum Structure Development and Implementation

- 2.1 Construct four modules and curriculum structure of DDMP PISAI emphasizing applicable thesis research and learning objectives aligning with the professionals need
- 2.2 Prepare program guidelines, quality assurance and criteria for student selection
- 2.4 Faculty and staff training for efficient and effective program delivery and student supervision
- 2.5 Provision of needed equipment
- 2.6 Orientation for private sectors, related agencies and students for collaborative thesis research study






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WP2: Development (KU)
Curriculum Structure Development and Implementation

- 2.7 Preparation of on-line application system
- 2.8 Student enrolment and registration of DDMP PISAI (2 cohorts), each student under 2- university supervision and EU partner co-supervision
- 2.9 (+2.3) Student exchanges mobility between Thai partners and the European partners
- 2.10 Organize learning modules and practical courses jointly with European partners and their students



Participating Organisation : CMU, PSU, KKU, SupAgro, CULS, UCPH, UHEL, Agrinatura

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WP3: Quality Plan (SupAgro)
Assessment of Developed Program and Activities



- 3.1 Review of DDMP PISAI by external reviewers and professionals
- 3.2 Development of Guideline for Co-supervision between the two universities graduating the students
- 3.3 Selection of students according to set rules and qualification
- 3.4 Selection of thesis topics and study sites based on identified specifications
- 3.5 Guest lectures by EU partners and representatives of enterprises at Thai participating HEIs
- 3.6 Identification and appointment of EU partner as thesis committee/ review the thesis progress

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WP4 (KKU and CULS)
Dissemination and Exploitation Stakeholders & Public Recognition



- 4.1 Organization of Annual Meeting on Agricultural Sustainability
- 4.2 The quality of the master's thesis defended by students of the first cohort will be evaluated by an independent external evaluator from the European partners
- 4.3 The employment of the first batch graduates will be assessed and the results widely disseminated on the website and in the media
- 4.4 Promotion of the innovative DDMP PISAI in the supply chain
- 4.5 Building and offering practical extension courses
- 4.6 Publication of project outputs in media, a newsletter, science meetings, different forms , and live video on Facebook

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WP 5: Management (PSU)
Joint Coordination of Project Activities



- 5.1 Organizing project kick-off meeting and regular meeting for action plan of work package
- 5.2 Providing interactive websites, Facebook and on-line information
- 5.3 Financial allocation for project activities
- 5.4 Organizing Final Project Conference to disseminate research and project outputs
- 5.5 Preparation of reports

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Indicators of progress include:



- One collaborative DDMP emphasizing “Participatory and Integrative Support for Agriculture” Initiative (PISAI)
- Four practical modules covering the production chain to the market and business management are developed and offered.
- The “practicals” are integrated into the PISAI curriculum, which facilitates the relations with the professionals.
- The courses and modules of the PISAI curriculum are measured in ECTS so that Erasmus student exchanges, that can be facilitated with European partners.
- One practical module is organised in the field jointly with European partners.

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Indicators of progress (Continued).....

- Integration of a joint practical module into both the DDMP - PISAI and the European master’s degree curriculum with award of ECTS of the EU partners.
- Arrange staff mobility to develop effective modules and short term student exchanges for both Thai and EU HEI partners
- Thesis research responds to practical problems and at the international level

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Collaboration in Double Degree Program

Existing M.Sc. at Thai Partner Institutes

Structure and Options

Module integration into the existing program



- Module 1, 2, 3 (and 4) jointly offered by Thai & EU partners
- Each Thai univ. is responsible for each module
- Compulsory for students from 4 institutes that needs student mobility

DDP Arrangement

1 Year at home univ. + 1 Year at host univ.

Options:

1. 100% Thesis (50% at home+50% at host)
2. Courses (at home)+ thesis (at host)

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Structure of M.Sc. In Thailand

Example: Master of Science in Plant Science, PSU

	Plan A 1	Plan A 2
Total credits required	minimum 36 credits	minimum 36 credits
Compulsory	-	minimum 9 credits
Electives	-	minimum 9 credits
Thesis	minimum 36 credits	minimum 18 credits

Existing M.Sc. - 2 Year

Plan A 1		Plan A 2	
Year 1	Credit	Year 1	Subject
Semester 1	Thesis 4 (0-12-0)	Semester 1	Research Method in Agriculture 3 (2-3-4)
Semester 2	Thesis 9 (0-27-0)		Advanced Crop Physiology 3 (3-0-6)
			Electives 3 (X-Y-Z)
		Semester 2	Current Topics in Plant Sc. 1 (0-2-1)
			Seminar I 1 (0-2-1)
			Electives 3 (X-Y-Z)
			Thesis 4 (0-12-0)
Year 2	Credit	Year 2	Subject
Semester 1	Thesis 11 (0-33-0)	Semester 1	Thesis 6 (0-18-0)
Semester 2	Thesis 12 (0-36-0)		Electives 3 (X-Y-Z)
		Semester 2	Seminar II 1 (0-2-1)
			Thesis 8 (0-24-0)
Total	36 credits	Total	36 credits

Examples of Elective Subjects

Subject	Credit
Advanced Crop Biotechnology	3 (2-3-4)
Crop Genetic Engineering	3 (2-3-4)
Agroecosystem	3 (3-0-6)
Crop Evolution	3 (3-0-6)
Resistance of Plant to Diseases	3(2-3-3)
Biological Control of Plant Pathogens	3(2-3-3)
Special Problems	3 (0-9-0)

Proposed Structure of Double Degree – M.Sc.

Plan A 1	
Year 1	Credit
Semester 1	Thesis 4 (0-12-0)
Semester 2	Thesis 9 (0-27-0)
Year 2	Credit
Semester 1	Thesis 11 (0-33-0)
Semester 2	Thesis 12 (0-36-0)
Total	36 credits

Option 1: 100% Thesis

Year 1 - at home university
(50% of research work)

Year 2 - at host university
(50% of research work)

Module 1-3 compulsory

Condition for graduation:
minimum 1 international paper

Proposed Structure of Double Degree – M.Sc.

Plan A 2		
Year 1	Subject	Credit
Semester 1	Research Method in Agriculture	3 (2-3-4)
	Advanced Crop Physiology	3 (3-0-6)
	Electives	3 (X-Y-Z)
Semester 2	Current Topics in Plant Sc.	1 (0-2-1)
	Seminar I	1 (0-2-1)
	Electives	3 (X-Y-Z)
	Thesis	4 (0-12-0)
Year 2	Subject	Credit
Semester 1	Thesis	6 (0-18-0)
	Electives	3 (X-Y-Z)
Semester 2	Seminar II	1 (0-2-1)
	Thesis	8 (0-24-0)
Total	Total	36 credits



Option 2: Courses+Thesis

Year 1 - at home university
(research proposal preparation)

Module 1-3 compulsory

Year 2 - at host university
(100% of research work)



Condition for graduation:
minimum 1 international paper

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Indicators



- Key elements of successful agricultural production at small, medium and large scale operations are used in module and program development
- 4 PISAI modules/courses offered at partner HEIs are co-accredited by the four Thai partners
- List of skills and competencies for each module and linkage with the qualification framework
- Thai teaching staff trained and involved in the course/thesis research
- Guideline and arrangement for co-supervision of each student between partner universities

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Indicators

- Agreement is reached between universities of consortium for equivalent credits, rules of DDMP collaboration, thesis processes and quality assurance
- At least 12 farms/private companies participated in the program
- At least 32 qualified students enrolled for two cohorts (8 students at each Thai partner HEI)
- Number of student mobility, within Thailand and with the European partner universities
- Number of thesis approved and finalized

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Indicators

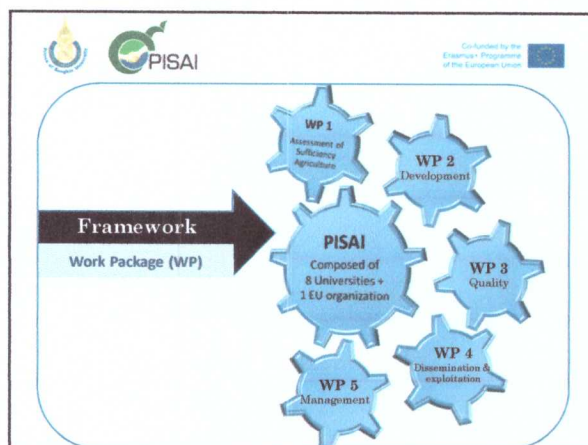
- Credit transfer recognition between Thai and European partner universities
- Number of Extension courses provided for non-partner HEIs and smallholder farmers and organizations in Thailand and ASEAN countries
- Mission for introducing DDMP PISAI at potential universities in Thailand and neighbouring countries
- Project activities publicized at the national and annual agricultural fairs at each Thai partner university.
- Final project conference
- Regular project meetings to monitor the WP activities and progress

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PISAI
Participatory and Integrative Support for
Agricultural Innovative

Kick-off Meeting
8 January 2018 — Group Discussion
Faculty of Natural Resources, Prince of Songkla University



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Indicators of progress include:

- One collaborative DDMP emphasizing *"Participatory and Integrative Support for Agriculture" Initiative (PISAI)*
- Four practical modules covering the production chain to the market and business management are developed and offered.
- The "practicals" are integrated into the PISAI curriculum, which facilitates the relations with the professionals.
- The courses and modules of the PISAI curriculum are measured in ECTS so that Erasmus student exchanges, that can be facilitated with European partners.
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Indicators of progress (Continued).....

- Integration of a joint practical module into both the DDMP - PISAI and the European master's degree curriculum with award of ECTS of the EU partners.
- Arrange staff mobility to develop effective modules and short term student exchanges for both Thai and EU HEI partners
- Thesis research responds to practical problems and at the international level



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ANNEX 4

The Collective Knowledge/Analysis on the Sufficiency and Sustainable Agriculture

by
Chiang Mai University

Outline

- Principle of the Philosophy of Sufficiency Economy
- Application of Sufficiency Economy Philosophy in Agricultural Sector
- Example of program applied SEP

An introduction to the sufficiency economy philosophy

- Thailand has its own unique framework for sustainable development.
- It is called the Sufficiency Economy Philosophy (SEP)
- It is based on more than four decades of development work, insight and observations by His Majesty King Bhumibol Adulyadej.
- This philosophy was conceived by the king in the mid-1970s.
- It was formalized in the wake of the 1997 Asian Financial Crisis and has since become the nation's guiding spirit.

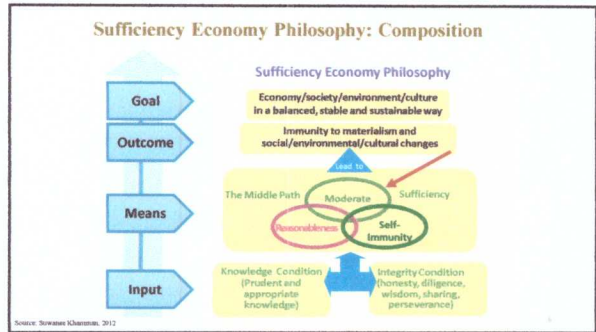
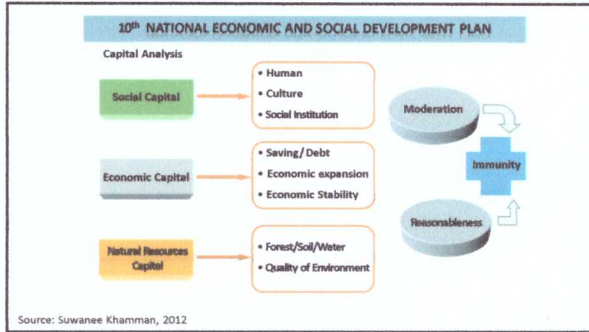
Source: www.mfa.go.th




"...The development of the country must be fostered in stages. It must start with the construction of infrastructure, that is, the provision of food and basic necessities for the people by methods, which are economic, cautious and conforming with principles. Once the foundation is firmly established, progress can be continually, carefully and economically promoted. This approach will prevent incurring mistakes and failures, and lead to the certain and complete achievement of the objectives."

H.M. The King's Address delivered on Kasetsart University Commencement Ceremony on 19 July 1974

Source:Thalwys,2002



Moderation

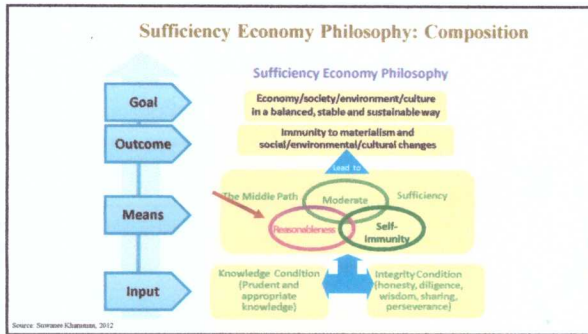


"Sufficiency is moderation ... Being moderate does not mean being too strictly frugal; consumption of luxurious items is permissible but should be moderate according to one's means"

(Royal Speech, given at Dusit Palace, 4 December 1998)

Moderation

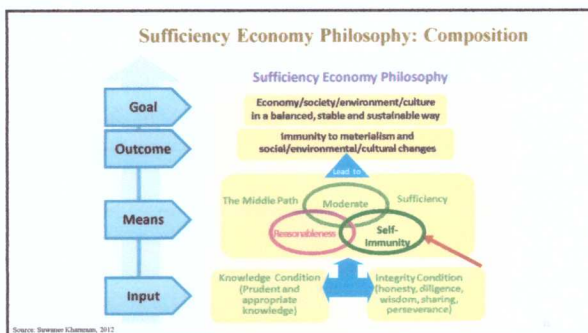
- Moderation in the sense of not too much or not too little is an Eastern concept.
- Moderation in SEP is also concerned with longer term and dynamic constraints on means.
- Individuals can raise levels of consumption effectively, such an expansion lowers the constraints that counsel moderation in consumption.
- It suggests the need to continuously improve on one's capacity to act.



Reasonableness

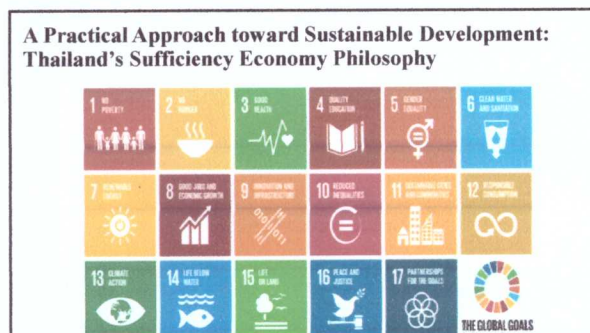
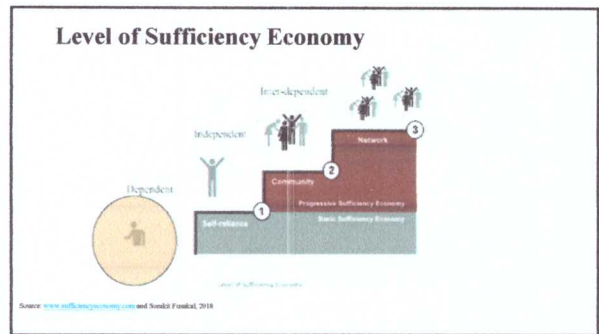
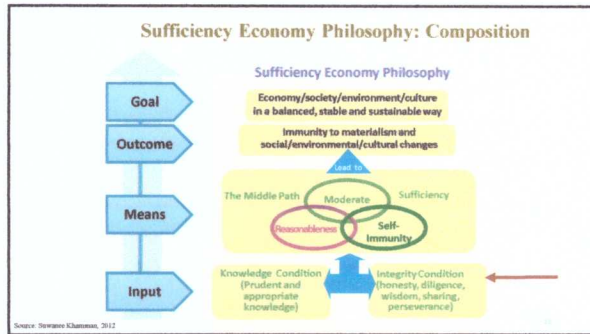
Reasonableness requires that the choices we make be justifiable by using:

- Academic approaches
- Legal principles
- Moral value or social norms



Immunity

- Immunity to changes in material circumstances
- Immunity to social changes
- Immunity to environmental changes
- Immunity to cultural changes



Goal 1: No Poverty

The SEP strategy for eradicating poverty

- Alleviating hardship among the poor and vulnerable has always been a central goal of SEP.
- By promoting knowledge, moderation and prudent decision-making, the philosophy can enable individuals and communities to become more self-reliant and resilient in the face of the shifting and unpredictable fortunes of a globalized world.

There are more than 8,000 SEP Model Villages in Thailand as of 2016

From 1986 to 2014, poverty in Thailand has decreased from 67% to 11% of the population according to the Asian Development Bank.

ONLY 0.6% of Thais ARE LIVING ON LESS THAN US\$ 1.90 PER DAY (07 Baht)

Source: www.mfa.go.th

Goal 2: No Hunger

SEP promotes food security from the roots up

- SEP and King Bhumibol Adulyadej's "New Theory" of agriculture advocate integrated farming that encourages both self-reliance for the farmer and addresses larger environmental concerns.
- When implemented properly, these models serve to improve the diversity and resilience of farms, and break farmers out of the debt-and-poverty cycle, while also creating more nutritious crops for public consumption.

1. Use a **small** plot of land, the king advises that:



2. Use **integrated** crops and animals to create a self-sufficient household.



3. **Integrate** crops and animals to produce a nutritious diet for the household.



4. **Integrate** crops and animals to produce a nutritious diet for the household.



5. The **integrated** system of crops and animals provides a nutritious diet for the household.

Source: www.mfa.go.th

Application of Sufficiency Economy Philosophy in Agricultural Sector

Application of SEP In Agricultural Sector by Group

- Farmer
- Agribusiness

Application of SEP In Agricultural Sector by Farmer

- In Thailand, promoting sustainable agriculture means helping Thai farmers remain productive and profitable while they transition to more eco-friendly cultivation practices.
- For decades, Thai farmers have been advised to choose crops that best suit their soil.
- As an example, in drought zone areas this means moving away from water-intensive crops like rice.
- By being more savvy about what they grow, farmers can mitigate risks and help protect against the likelihood of failed crops.

NEW THEORY FARMING



As of 2016, New Theory farming has been implemented at more than 40,000 villages nationwide.

Source: Modified from MFA Thailand, 2016

The 1st Stage: A Model Family Farm



Source: Modified from MFA Thailand, 2016

The 2nd Stage: Forming Cooperatives

After family farmers have become self-reliant, they are encouraged to form cooperative that can advance their economic activities; such as marketing crops, saving surplus income and purchasing new inputs.

Source: Modified from MFA Thailand, 2016

The 3rd Stage: Community Links with Private Sector

With experience in working cooperatively, farming communities are encouraged to link up with business interests to expand their economic activities.

Source: Modified from MFA Thailand, 2016

Application of SEP In Agricultural Sector by Agribusiness

- They are more concerned on sustainable and stable long-term profits than short-term results.
- They are well-informed about business related knowledge, eager to learn new information in order to cope with changes, and be prudent in decision-making.
- They conduct business ethics, with honesty and integrity.
- They display perseverance and diligence by continuously developing their businesses through improvements in production efficiency and product quality, based on changing technologies and market needs.
- They are socially responsible and concerned about the environment at every step, while balancing profit-sharing among all stakeholders such as consumers, staff/workers, business partners, and shareholders

The Royal Agricultural Station Inthanon



Source: www.mfa.go.th

The Royal Agricultural Station Angkhang



Source: www.mfa.go.th

The Doi Kham Food Products Co.



The Doi Kham Food Products Co.

- The Doi Kham Food Products Co. buys organic farm products at fair prices from the hill tribe people in northern Thailand to support their sustainable farming.
- Buying the produce at fair prices help prevent the hill tribes from being exploited.
- Meanwhile, Doi Kham continues to support the highlanders with new sustainable farming techniques to restore highland ecology and the farmers' quality of life.
- Consumers also benefit from organic products from Doi Kham, proving that conscientious consumption can end farmers' hunger and protect the environment.

Source: www.mfa.go.th



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ANNEX 5



Building Capacities in Sustainable Agriculture

Lessons learned
from passed experiences in Europe

Role and function
of field based courses

Anna Kroutilova
Didier Pillot

Hat Yai
8 to 10 January 2018
PISAI Kick off meeting

Who we are?

Where are the lessons learned from?

- **Agrinatura : 29 Universities and Research Centers that share a common interest in Agricultural Research for Development**
- **Several Universities have had MSc in Sustainable Agriculture for now 10 to 15 years : enough materials to take advantage from the lessons learned**
 - Univ of Copenhagen : Master in Agricultural Development
 - Montpellier SupAgro : Master in Sustainable Development of Agriculture (Agris mundus)
 - Boku Vienna : Master in agriculture with summer course in Food security and sustainable development
- **All these have developed field courses : comparisons possible from academic, scientific and methodological points of view**
- **Agrinatura is committed to build comparisons of the main field based approaches and capitalise on this**

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Outline



- **The Sustainable Agriculture approach:
Nice words for talking**
OR
A new way of doing business
- **New ways of learning required
to build capacities in Sustainable Agriculture**
the role of field courses

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Assessing Smallholder Farming:

Diagnostic analysis of family based agricultural systems in a small region

Illustrated with the case study of the Gihim Pioneer Farm, Sumatra, Indonesia



With contributions from Nephise RERIT, Fadhli ZIRD, Nadea FERIKON, Eudon KEND, Sihri Si, and Pawan PRITTI

Facilitated by Nani TOUMBORE and Tim CHOO



PROJECT REPORT
 Regional Workshop
 July 19 - 28, 2017



**SUSTAINABILITY
 TRANSITIONS SUMMER
 SCHOOL FOOD SECURITY
 AND CLIMATE CHANGE
 INTEGRATED FORESTRY
 FARMING SYSTEMS:
 A TRANSITION TO FOOD SECURITY
 IN A CHANGING CLIMATE?**



**Thinking Outside the Box:
 Interdisciplinary Integration of Teaching
 and Research on an Environment and
 Development Study Programme**

Prerit Oslin

Department of Society and Communication, Padjadjaran University, Bandung, Indonesia

Jaya Mukti Ayu Anandani, C. H. Fransiska,
 Department of Agricultural Science, University of Copenhagen,
 Copenhagen, Denmark

Abstract: This paper discusses the challenges of integrating teaching and research in an interdisciplinary and transdisciplinary manner. It explores the role of the environment and development study programme in this process.

**Problem-Based, Interdisciplinary Field-Based
 Courses: Reflections from South African
 Experiences**

Theo R. Hill, Tobias Birch-Thomsen, C. H. Fransiska,
 Annette de Niekerk and David Laboh

Abstract: This paper discusses the challenges of integrating teaching and research in an interdisciplinary and transdisciplinary manner. It explores the role of the environment and development study programme in this process.

Introduction
 Field-based and interdisciplinary teaching experiences of African
 students and post graduate students have been widely
 discussed in the literature on teaching in agriculture
 (Lynch and Pridmore 2007; Mafurisa and Smith 2008)

**Clear the Mind or Pre-connected Ideas
 and Get Your Hands Dirty? An Approach
 to Field-based Courses: The SLSU-southern
 Africa Experience**

Theo R. Hill, C. H. Fransiska, Tobias Birch-Thomsen,
 Annette de Niekerk and David Laboh

Abstract: This paper discusses the challenges of integrating teaching and research in an interdisciplinary and transdisciplinary manner. It explores the role of the environment and development study programme in this process.





**Sustainable agriculture:
Nice Words for Talking**

Or

**A New Way of Doing Business
effectively**

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Sustainable agriculture
Drivers behind the search for new paradigms

- Globalisation, privatisation, decentralisation and ICTs, Rapidly changing environments:
 - > Policies
 - > Markets
 - > Institutions
 - The graduate has at least to understand these changes
 - Increasing importance of knowledge for change
 - The graduate cannot know everything on all, but he needs to have the basis and needs to be trained on how to learn
 - Increasing complexity of the problems that R&D institutions need help resolve
- No overall solution, the solutions have to be created especially in each case: creativity is the master skill

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Multiple problems

Two contrasting innovation models

Complex problems

Creation of technology
(research)



Transfer of technology
(extension)



Use of technology
(farmers, end-users)

Innovation is a complex, multifaceted process

balanced partnerships of multiple stakeholders

Sustainable agriculture
interdisciplinary and multi-institutional teams

TRM
Facilitating mutual learning of a community of stakeholders

Doing business
stakeholders have different perspectives, interests & power

Rural Innovavuri
new professional roles & capabilities

joint ownership of the process

clearly defined responsibilities of stakeholders

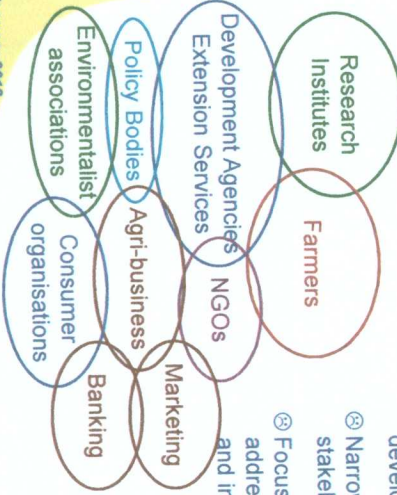
negotiated compromises between interests of different stakeholders

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Sustainable agriculture and Farmer Participatory Research

Partners in Change and Innovation



☺ Replaced "technology" with "people" at the heart of rural development

☺ Narrow and local range of stakeholders

☺ Focus on production; does not address environment, market and institutional issues

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The two opposed risks

or what a master in sustainable agriculture should avoid to be

- The “journalist” vision

Problems complex >>> remains superficial

- The promotion of alternative models of agriculture

Whatever they are often promoted as “sustainable”

- Conservation agriculture,
- Integrated agriculture,
- Composting and biogazing

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PISAI

New Ways of Learning

Required to Build Capacities

in

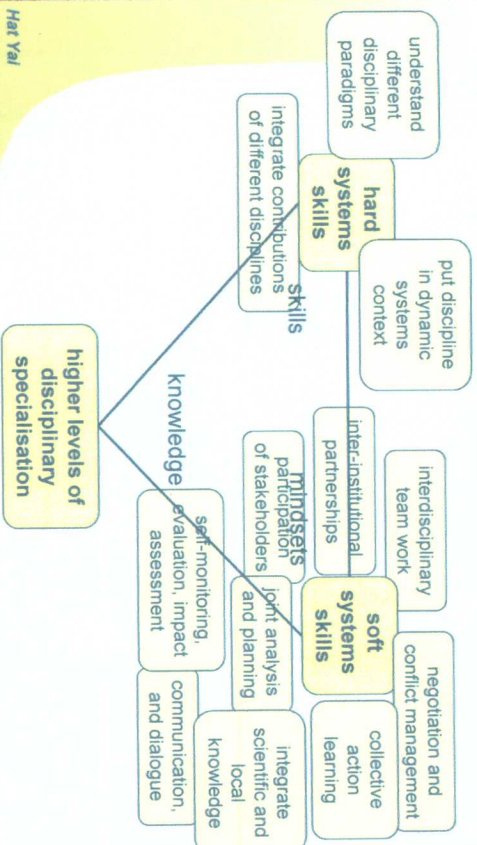
Sustainable Agriculture



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New professional capabilities needed for SA



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The role of the field work



- Each module should have a part of the work being done on the field
- An opportunity for the student to exert his capacities (practical) in an integrated manner
- or
- Discover the need of specific analytical needs that have to be taken from the (academic) courses
 - Opposed to : Visits on the field
 - Long enough to allow active learning
 - Needs to be prepared (on line?)

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The role of the elective modules



- An opportunity for the student to concentrate on learning what is necessary for his research project (the “concentration/specialisation” strategy)
 - or
 - An opportunity for the student to complement what he is doing in his research to address other issues
- In SA, the learning objectives are much larger than the only learning objectives connected with the research topic (reservations with regard to the MSc by research system)*

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	Field Visit module	Rapid rural appraisal module	Active learning module
How much the programme of work is predefined	Programme precisely defined ex-ante by the teaching staff	Some flexibility to adapt to unforeseen situations	A large flexibility is allowed Teaching staff check that the main points will be considered in the period
What do we look at ?	Supposed to be a reference (a « case »)	A problem on which student can try to apply model responses	A problem on which the students exert their analytical capacities
	No active research interviews can still be done	Students the knowledge of the existing stakeholders	Students build up their methodology of research, including direct



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ANNEX 6

Module 1 - Sufficiency and Sustainable Agriculture Production (Kasetsart University)

Period of 3 weeks

Date	Time	Topics	Resource persons
Sunday	Arrival of participants		KU-staff
I. Smart Agriculture* for Plant Production			
Monday	9:00-9:15	Opening ceremony	KU-staff
	9:15-10:00	Program introduction and introduction of participants	KU-staff
	10:30-12:00	Introduction to tropical agriculture	Staff or guest speaker- KU
	13:00-16:00	Agriculture in Thailand and in Southeast Asia	Staff or guest speaker- KU
Tuesday	9:00-12:00	Smart agriculture in soil management	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture in rice production	Staff or guest speaker- KU
Wednesday	9:00-12:00	Smart agriculture in cassava production	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture in corn and sugarcane production	Staff or guest speaker- KU
Thursday	7:00-18:00	Field trip to National Corn and Sorghum Research Center and Cassava Foundation, Nakhon Ratchasrima province	KU Staff
Friday	9:00-12:00	Smart agriculture in rubber and oil palm production	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture in horticultural plant production	Staff or guest speaker- KU
Saturday	Free day		
Sunday	Free day		
Monday	9:00-12:00	Smart agriculture horticultural plant production (Greenhouse production, plant factory etc.)	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture in horticultural plant production (Urban agriculture, vertical plant production, landscaping etc.)	Staff or guest speaker- KU
Tuesday	7:00-18:00	Field trip to horticultural farms with smart agriculture	KU Staff

Module 1 - Sufficiency and Sustainable Agriculture Production (Kasetsart University)
(Continued)

Date	Time	Topics	Resource persons
II. Smart Agriculture for Animal and Fishery Production			
Wednesday	9:00-12:00	Smart agriculture for animal husbandry	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture for animal husbandry	Staff or guest speaker- KU
Thursday	9:00-16:00	Field trip to animal farms with smart agriculture	KU Staff
Friday	9:00-12:00	Smart agriculture for fishery production	Staff or guest speaker- KU
	13:00-16:00	Smart agriculture for fishery production	Staff or guest speaker- KU
Saturday	Free day		
Sunday	Free day		
Monday	7:00-18:00	Field trip to fishery farms with smart agriculture	Staff or guest speaker- KU
III. Smart Agriculture in Farm Mechanics, Plant Protection and Technology Transfer			
Tuesday	9:00-12:00	Smart agriculture with farm mechanics	Staff or guest speaker- KU
	13:00-16:00	Workshop on “Smart Agriculture App VI”	Staff or guest speaker- KU
Wednesday	9:00-12:00	Smart agriculture with plant pathology	Staff or guest speaker- KU
	13:00-16:00	Workshop on “Smart Agriculture App VI”	Staff or guest speaker- KU
Thursday	9:00-12:00	Smart agriculture with entomology	Staff or guest speaker- KU
	13:00-16:00	Workshop on “Smart Agriculture App VII”	Staff or guest speaker- KU
Friday	9:00-12:00	Technology transfer of smart agriculture to farmers	Staff or guest speaker- KU
	13:00-15:45	Hot issues in agriculture (Precision agriculture, urban agriculture, plant factory etc.) Summary of summer program	Staff or guest speaker- KU
	15:45-16:00	Closing	
Saturday	Free day		
Sunday	Departure of participants		

*Smart Agriculture covers the history, development, current and future technologies and perspectives in crop.



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ANNEX 7

Module 2- Production Environment for Sufficiency and Sustainable Agriculture

Period of 4 weeks

Day	Time	Topics	Resource persons
Day 1		Arrival of participants	University & staff
I. General knowledge of agriculture in northeastern Thailand			
Day 2-7?	7:00-18:00	LECTURE & LAB: -Concept of Sustainable Agriculture Development -Overview of physical and social advantage and drawback on agriculture of Northeast Thailand -Soil and climatic constraints for agriculture -Social constraints -Agricultural system in Northeast Thailand: Constraints and opportunities for sustainable development	University & staff
	7:00-18:00	FIELD VISIT: -Case studies of sustainable crop production -Case studies of sustainable animal production PROGRAM WRAP UP: -Discussion and conclusion	University & staff
		Free day	
II. Sustainable animal production			
Day 8-14	7:00-18:00	LECTURE & LAB: -Translational experience -Case study in unsustainable animal production - Group discussion - Take home message - Animal genetic resource and productive management: from conservation to market - Local feeds and forages management for sustainable animal production -Research plan and designs for good agricultural practices for livestock farms -Sustainable inland aquaculture management and aquaponic production and food processing FIELD VISIT:	University & staff

**Module 2- Production Environment for Sufficiency and Sustainable Agriculture
(Continued)**

Day	Time	Topics	Resource persons
		<ul style="list-style-type: none"> - Dairy farm/ dairy cattle village - Commercial feed company - GMP slaughter house -Local aquaculture production <p>PROGRAM WRAP UP:</p> <ul style="list-style-type: none"> -Discussion and conclusion 	
		Free day	
III. Sustainable crop production			
Day 15-21	7:00-18:00	<p>LECTURE & LAB:</p> <ul style="list-style-type: none"> - Translational experience -Case study in unsustainable crop production - Group discussion -Take home message -Plant genetic resource and productive management: from conservation to market - Agricultural Systems in sufficient economy and low input agriculture - Integrated farming systems - Low input technology - Efficient water management - Integrated nutrient management (manure, compost, liquid organic Fertilizer) - Research plan and designs for good agricultural practices for crop production - Sustainable crop management and food processing <p>FIELD VISIT:</p> <ul style="list-style-type: none"> - Research institutes and private business farms <p>PROGRAM WRAP UP:</p> <ul style="list-style-type: none"> - Discussion and conclusion 	University & staff
		Free day	
IV. Soil ecology, soil biodiversity and soil quality for sustainable agriculture			
Day 22-2....	7:00-18:00	<p>LECTURE & LAB:</p> <ul style="list-style-type: none"> - Introduction to the soil as a support for sustainable ag. 	University & staff

**Module 2- Production Environment for Sufficiency and Sustainable Agriculture
(Continued)**

Day	Time	Topics	Resource persons
		<ul style="list-style-type: none"> - Basic soil concepts -Soil climate constraints for agriculture - Soil as a habitat for living organisms - Introduction to soil organisms (Microorganisms, macrofuana and microfauna) - Soil function -Principles of soil quality -Concept of bio-functool <p>FIELD VISIT:</p> <ul style="list-style-type: none"> -Field and landscape description; soil sampling and measuring of some soil properties - Assessment of soil quality under different managements (Rubber, sugarcane, cassava etc.) using bio-functools set of tools <p>PROGRAM WRAP UP:</p> <ul style="list-style-type: none"> -Discussion and conclusion 	
		Free day	
V. Organic crop protection for sustainable agriculture			
Day.....	7:00-18:00	<p>LECTURE & LAB:</p> <ul style="list-style-type: none"> - Introduction to the major pests of Thailand economic crops - Insects -Plant diseases - Weeds - Environmental friendly control methods -Case study in N.E. of Thailand and problems <p>FIELD VISIT:</p> <ul style="list-style-type: none"> - Organic farm - Government sectors related to Agriculture <p>PROGRAM WRAP UP:</p> <ul style="list-style-type: none"> -Discussion and conclusion 	University & staff
		Free day	

Module 2- Production Environment for Sufficiency and Sustainable Agriculture
(Continued)

VI. Moving local agricultural products from self-sufficiency production and household consumption to market			
Day.....	7:00-18:00	<p>LECTURE & LAB:</p> <ul style="list-style-type: none"> - Local agricultural products and roles on sufficient economy on production of good quality local agricultural raw materials - Change local agricultural products to commercial products by processing and packaging based on sufficient economy approach - Cost and price determination: production, processing, packaging and final price of commercial products - Community enterprise establishment - Marketing techniques used for moving local agricultural products to commercial products based on sufficient economy approach <p>FIELD VISIT:</p> <ul style="list-style-type: none"> - Local villages <p>PROGRAM WRAP UP:</p> <ul style="list-style-type: none"> - Discussion and conclusion 	University & staff
		Free day	
		Departure of participants	



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ANNEX 8

Module 3 - Post-harvest, Processing and Economics
(Chiang Mai University and Prince of Songkla University)

Date	Time	Topics	Resource persons
Sunday	Arrival of participants		CMU-Staff
I. Value chain management in agribusiness under Sufficiency Economy Philosophy (SEP)			
Monday	09:00-09:15	Opening ceremony	Dean of Agriculture
	09:15-10:00	Program introduction, introduction of participants	Asst. Prof. Dr. Pornsiri Suebpongsang
	10:30-12:00	What is agribusiness?	Staff or guest speaker -CMU
	13:00-16:30	Concept of Value chain management	Staff or guest speaker -CMU
Tuesday	09:00-12:00	Value chain management in agribusiness	Staff or guest speaker -CMU
	13:00-16:30	Key players in value chain development and promotion in agribusiness	Staff or guest speaker -CMU
Wednesday	09:00-12:00	Marketing management for agribusiness: Part I	Staff or guest speaker -CMU
	13:00-16:30	Visiting important agricultural market	Staff or guest speaker -CMU
Thursday	9:00-12:00	Inclusive marketing system for building capacity and resilience of local systems	Staff or guest speaker -CMU
	13:00-16:30	Organic and safe food markets: opportunities and challenges	Staff or guest speaker -CMU
Friday	9:00-12:00	Economic factors affecting diversified farming systems in Sufficiency Economy Philosophy (SEP)	Staff or guest speaker -CMU
	13:00-16:30	Success stories of SEP-based farming enterprises and their common principles and practices	Staff or guest speaker -CMU
Saturday 9/30	Free day		
Sunday 10/1	Free day		
II. Farmer organization and institution role in supporting SEP			
Monday	9:00-12:00	Farmers' and farmers' organizations for scaling up sustainable food production	Staff or guest speaker -CMU
	13:00-16:30	Building famers' capacity effectively and inclusively	Staff or guest speaker -CMU
Tuesday	9:00-12:00	Institutional Role for support Sufficiency Economy Philosophy (SEP) Part I	Staff or guest speaker -CMU
	13:00-16:30	Field trip to successful farmer group	Staff or guest speaker -CMU

**Module 3 - Post-harvest, Processing and Economics
(Continued)**

Wednesday	9:00-12:00	Institutional Role in Sufficiency Economy Philosophy (SEP) Part II	Staff or guest speaker -CMU
	13:00-16:30	Field trip to successful farmer group	Staff or guest speaker -CMU
Thursday	9:00-12:00	Agribusiness management type in Sufficiency Economy Philosophy (SEP) Part I	Staff or guest speaker -CMU
	13:00-16:30	Field trip to agribusiness group using SEP	Staff or guest speaker -CMU
Friday	9:00-12:00	Agribusiness management type in Sufficiency Economy Philosophy (SEP) Part II	Staff or guest speaker -CMU
	13:00-16:30	Field trip to agribusiness group using SEP	Staff or guest speaker -CMU
Saturday	Free day		
Sunday	Free day		
III. Food quality management and certification			
Monday	9:00-12:00	Food quality management Part I	Staff or guest speaker -PSU
	13:00-16:30	Food quality management Part II	Staff or guest speaker -PSU
Tuesday	9:00-12:00	Postharvest management for agribusiness Part I	Staff or guest speaker -PSU
	13:00-16:30	Postharvest management for agribusiness part II	Staff or guest speaker -PSU
Wednesday	9:00-12:00	Certification for agribusiness part I	Staff or guest speaker -PSU
	13:00-16:30	Certification for agribusiness part II	Staff or guest speaker -PSU
Thursday	8.30– 16.30 (Stay overnight)	Field trip to Royal Project station: postharvest management and food quality control systems	CMU staff
Friday	8.30 -16.00 16.30	Field trip to Royal Project station: postharvest management and food quality control systems Traveling back to CMU	CMU staff
	Closing		Asst. Prof. Dr. Pornsiri Suebpongsang
Saturday 10/14	Free day		
Sunday 10/15	Departure of participants		



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ANNEX 9

Learning objectives and programme

suggested by the group of discussion on PISAI Module 1

Pisai kick-off meeting, January 8, 2017

General learning objective: It is suggested that the students be placed in a position of actively analysing the agricultural production and its results in one rural place, and the mechanisms along which these results are obtained. In the meantime, a series of lectures before, in the middle and after the fieldwork would accompany that effort of “self-sufficiency” research by providing the tools, methods and the knowledge to allow the students to exert these capacities.

Several “periods” or “sessions” are identified all along the whole duration of the module. For each period has specific objectives are defined.

I. SESSION 1 (AT UNIVERSITY) : 2 TO 3 DAYS

1. Learning objectives;

- Breaking the ice between participants from different origins. Be able to identify the capacities of the other students
- Breaking the traditional attitude of Thai students that they remain passive as soon as academic training is concerned (whereas they can be very active in other domains!)
- Improve self confidence that they can analyse the situation and propose options that can be discussed with the local people at the feed back session closing the module
- Introduce the field work exercise. Make the students aware of the “rules of the game”. Explain the conditions of the fieldwork

2. Programme

- Welcome
- Mutual presentation of the participants
- Discussion of the programme
- Icebreaking exercises 1
- Active lecture 1: Groups of students work on different papers regarding Reductionism/analytical approaches versus Systemic/integrative approaches mutual presentations of the results and general discussion. The lecturer is present , while he is as a moderator of the discussion, not giving a formal presentation
- Ice breaking exercises 2
- Active lecture 2 : Addressing the levels of complexity of agricultural activity : several groups per level : the plant (the animal), the plot (the herd), the farm, the community, the country, the world
- Preparation of the session 2 on the field: what do we propose to do? Groups work in parallel and feedback

II. SESSION 2 (ON THE FIELD): THREE DAYS

1. Learning objectives

- Be able to identify the diversity of the natural conditions of agriculture (climate, soils, access to water) in any area
- Be able to identify the various cropping systems done by the farmers (identification and broad characterisation)
- Be able to identify problems as perceived by the local stakeholders interviewed

2. Programme (several small groups work in parallel)

- Transects walks
- Landscape analysis
- Historical surveys about the transformations of the agricultural activity (old people)
- Focus group discussions

III. SESSION 3 (AT UNIVERSITY) : THREE DAYS

1. Learning objectives

- Get the skills for an analysis of the climatic constraints
- Get the skills for soils observation and distinction (classification) ; surface and in depth
- Prepare a research project proposal
- Be able to identify “problems” as perceived by the local stakeholders interviewed

2. Programme

- Lecture on climate (or rather on climatic data analysis)
- Lecture on soils /fertility management/water management
- Lecture: from problems to research questions, followed by practical exercise : transform the problems identified in session 2 into research questions that can be addressed in session 4
- Lecture on cropping systems assessment / indicators of results, performance
- Lecture on animal breeding systems assessment : indicators of results, performance

Following the five lecture topics, groups work in parallel on one of them to gather and process data on these issues from the field place

IV. SESSION 4 (ON THE FIELD) : ONE WEEK

1. Learning objectives

- To be able to characterise and assess the various cropping systems practiced in the area
- To be able to characterise and assess the various animal rearing systems practiced in the area
- To identify the interactions within a system

- To investigate on research questions along a research plan

2. Programme

- Surveys, interviews, Focus group discussions along the plan prepared in session 4 (per small group)
- Data are analysed as soon as they are produced. Groups report every evening on their progresses made.

V. SESSION 5 (UNIVERSITY) : 2 DAYS

Finalisation of the analysis, preparation of the feedback session and final report

Presentation of the results at university

Final report at university

VI. FEED BACK SESSION ON THE FIELD (ONE DAY)



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ANNEX 10

1. Ecosystems service for S.A. in a challenging environment

- **1st week Soil environments**
 - visit Nutrient management (Organic & Inorganic)
 - Integrated farming system

Keyword

Week1

- Ecostacking (Biocontrol)
- Integrative soil quality assessment
- Functional biodiversity
- Water cycling

2. Utilizing generic

Based on expert experience → Lecture / Visit

- Crop
- Resources for S.A.
- Animal

2nd week Crop protection

- visits: Organic Farm
- IPC Farm

Keyword

Week2

- Introduction on sustainability
- Challenge issues on S.A. in N E Thailand
- Agriculture a threat for Biodiversity
- Cases studies (Organic vs Conventional)

3. Literature review

Farmers simple survey

-Link to case studies

- **3rd week Animal Production**

-visit cow, chicken ...production

***Study technique**

-Individual report

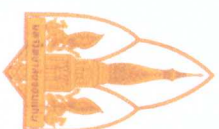
-Group working on the small farmer case

***Note**

Presentation from student 10+5 mins



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Module 2

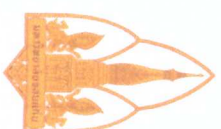
Environmental/Ecosystem for Sustainable Agriculture



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Montpellier
SupAgro

IRD
Institut de Recherche
pour le Développement
FRANCE

Main theme

I. Animal Production

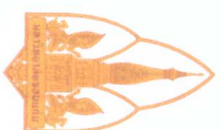
II. Plant Production

III. Soil and Environments

(base on northeast situation)



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Main theme: Environment/Ecosystem

1. Ecosystems service for S.A. in a challenging of environments

2. Literature review

- Simple survey Farmers
- Link to case studies

Week2

- Introduction on sustainability
- Challenge issues on S.A. in N E Thailand
- Agriculture a threat for Biodiversity
- Cases studies (Organic vs Conventional)

3. Utilizing genetic resources for SA

- Crop
- Animal

Lecture and Visit

Animal production

Week1

- Ecostacking (Biocontrol)
- Integrative soil quality assessment
- Functional biodiversity
- Water cycling / irrigation???

Visit/workshop

Organic or sustainable farm/integrated farm/general farm (comparing)

I. Animal Production

II. Plant Production

III. Soil and Environments



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ANNEX 11

Module Content

Module 3 → Value Chain Management

Scope: Post harvest, primary and industry processing and marketing Scope

Working Team: CMU, PSU, CULS

Conclusion: Period 3 weeks / Minimum 16 students

Date	Time	Topics	Resource persons
Sunday	Arrival of participants		CMU-Staff
I. Aspects of value chain management			
Monday	09:00-09:15	Opening ceremony	Dean of Agriculture
	09:15-12:00	Program introduction Introduction of participants – Each student will introduce themselves and their background (maximum 10 mins/person with ppt)	Asst. Prof. Dr. Pomsiri Suebpongsang
	13:00-16:30	Lecture: Value chain management	Staff or guest speaker -CMU
Tuesday	08:30-12:00	Lecture: Postharvest management for agribusiness	Staff or guest speaker -CMU
	13:00-16:30	Lecture: Food Quality	Staff or guest speaker -CMU
Wednesday	08:30-12:00	Lecture: Marketing (Consumer behavior) and management (Farmers organization)	Staff or guest speaker -CMU
	13:00-16:30	Field trip to Royal Project station: Postharvest management and food quality control systems	Staff or guest speaker -CMU
Thursday	08:30-16:30	Field trip to Royal Project station: postharvest management and food quality control systems	Staff or guest speaker -CMU
Friday	08:30-12:00	Lecture: – Format of the research proposal – Literature search – Problem formulation – Methods and tools (Sampling)	Staff or guest speaker –CMU
	13:00-16:30	Team work: - Preparation of the method and planning of data collection	Staff or guest speaker –CMU
Saturday	Free day		
Sunday	Free day		
II. Field practice training: team work			
Monday – Sunday	Data collection and analysis		Staff or guest speaker –CMU

III. Data Interpretation/processing and presentation			
Monday	08:30-12:00	Lecture: Scientific writing and presentation techniques	Staff or guest speaker –PSU
	13:00-16:30	Team work: – Preparing the poster	Staff or guest speaker –PSU
Tuesday	08:30-12:00	Group discussion: – Presentation of poster prepared by each working team	Staff or guest speaker –PSU
	13:00-16:30	Team work: – Preparation of ppt	Staff or guest speaker –PSU
Wednesday	08:30-12:00	Group discussion: – Presentation of ppt prepared by each working team	Staff or guest speaker –PSU
	13:00-16:30	Team work: – Preparation for the final report (manuscript including introduction, materials and methods, results, discussions and conclusions)	Staff or guest speaker –PSU
Thursday	8:30-16:30	Team work: – Preparation for the final report (manuscript including introduction, materials and methods, results, discussions and conclusions)	
Friday	08:30-12:00	Group discussion with final presentation	
	13:00-16:30	Closure of the module with award certification ceremony	Asst. Prof. Dr. Pornsiri Suebpongsang
Saturday	Free day		
Sunday	Departure of participants		
Lectures:	21 hours		
Team work:	17.5 hours		
Group discussion:	16.5 hours		
Field training:	35 hours		
Field trip:	10.5 hours		



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ANNEX 12



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Kick-off Meeting

10 January 2018

Faculty of Natural Resources, Prince of Songkla University



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Suggestions for Module Contents

Adjusted Modules	Suggested Contents
1. Agricultural production	
2. Production environment for sustainable agriculture	
3. Post harvest, primary and industry processing and marketing	
4. Field attachment	



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Learning Objectives

Key Activities for M.Sc. under "PISAI"	Learning Objectives
1. Module 1	
2. Module 2	
3. Module 3	
4. Module 4	
5. Practical thesis research	
5.1 Proposal development	
5.2 Research study	
5.3	
6. Co-supervision of Thai and EU Partners	
7.	



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European Student Involvement

Module	Days*	University	Total Number of Student/ 2 cohorts	
			Planned	Adjusted
1. Module 1	UCPH	8	
2. Module 2	SupAgro	4	
3. Module 3	CULS or UHEL	4	
4. Module 4	CULS or UHEL	4	

- The duration will be from the group discussion.
- This will have an effect on the number of students because of the budget constraint.



Work Plan - Year 1

Activities		Timeline
1. (1.1)	Assessment study of the key elements and lessons to be learned of practical sustainable production of different agricultural products at small, medium and large scales in Thai and European environments (CMU and Didier)	M2-M4 15 Nov 2017 - 14 Feb. 2018
2. (1.2)	Identifying and making a network with potential private/co-operatives, NGO and government offices for student thesis collaboration (Every partner)	M2-M12 15 Nov 2017 – 14 Oct 2018
3. (1.3)	Organizing a workshop on "Successful Participatory Sustainable Agricultural Production" and defining the learning objectives (Thai partners at CMU)	M4-M5 15 Jan – 14 May 2018
4. (2.5)	Provision of needed equipment: Lab equipment (10 months duration)	M4-M12 15 Jan – 14 Oct 2018
5. (2.1)	Construction of 4 modules and curriculum of DDMP-PISAI emphasizing applicable thesis research (During the kick-off and pair working groups)	M6-M7 15 Mar – 14 May 2018
6. (2.2)	Prepare program guidelines, quality assurance and criteria for student selection (All partners)	M7-M8 15 Apr. – 14 Jun 2018
7. (2.7)	Preparation of on-line application (PSU)	M8 15 May – 14 Jun 2018
8. (2.6)	Orientation for private sectors, related agencies and students for collaborative thesis research study (Thai Partners)	M7-M8 15 Apr. – 14 Jun 2018
9. (3.1)	The created modules and program structure assessed by external reviewers including professionals (Thai expert and UCPH, Thilde) (at KU)	M8 15 May – 14 Jun 2018
10. (3.2)	Development of Guideline for Co-supervision between the two Thai universities graduating the students (Thai partners)	M9-M10 15 Jun – 14 Aug 2018
11. (3.3)	Selection of students according to set rules and qualification (All partners)	M9-M12 15 Jun-14 Oct. 2018
12. (2.8)	Enrolment of DDMP PISAI (1 st cohort) (At each Thai Univ. Partner)	M11-M12 15 Sept – 14 Oct 2018

Number in parentheses (eg. 1.1) indicate the work package activities



Work Plan - Year 2

Activities		Timeline
1. (5.1)	Steering committee meeting for following up the action plan (Skype)	M1 15 Oct.-14 Nov 2018
2. (2.4)	Faculty and staff training for efficient and effective program delivery and student supervision (Identify the teaching staff, 1/ Thai Univ.)	M1-M2 15 Oct – 14 Dec 2018
3. (2.8 & 3.4)	Running DDMP PISAI: the first cohort of students and selection of thesis topics	M1-M12 15 Oct 18 – 14 Oct 2019
4. (3.6)	Identification and appointment of EU partner as thesis committee and review the thesis progress	M3-M6 15 Dec 18 – 14 Apr 2019
5. (2.10)	Organize modules and practical courses jointly with EU partners and their students (KU & Copenhagen with Sluse project for module 1, KKU and IRD for module 2, CMU & PSU and CULS for module 3)	M6, M8, M9 Mar, May, Jun-15 Jul 2019
	Students' Progress Report	During the field module
6. (3.5)	Guest lectures provided by EU partners and representatives of enterprises at Thai participating HEIs (1 Day at Thai Partner Univ.)	M6 & M12 15 Mar – 15 Apr 2019
7. (2.9)	Thai students to EU program universities (CULS)	15 Sept.-14 Oct 2019 M11 - M12
8 (3.3)	Selection of students according to set rules and qualification (2 nd cohort)	15 Aug. – 14 Oct 2019 M9-M11
9 (2.8)	Enrolment of DDMP PISAI students (2 nd cohort)	15 Jun-14 Sept 2019 M11-M12 15 Aug – 14 Oct 2019

Number in parentheses (eg. 5.1) indicate the work package activities



Activities		Timeline
1. (5.1)	Steering committee meeting for following up the action plan (Skype)	M1 15 Oct.-14 Nov 2019
2. (2.10)	Organize modules and practical courses jointly with European partners and their students (KU & Copenhagen with Sluse project for module 1, KKU and IRD for module 2, CMU & PSU and CULS for module 3)	M6, M7, M8 Mar-June 2020
3. (2.8 & 3.4)	Running DDMP PISAI: the first cohort of students and selection of thesis topics	M1-M12 15 Oct. 2019 – 14 Oct 2020
4. (4.1)	Annual Progress Meeting on Agricultural Sustainability and selection of the best project as a learning model for others	M3-M6 15 Dec 19 – 14 Apr 2020
5. (4.2)	Defense of Master Thesis that evaluated by external reviewer from one of the European partners	M6 15 Mar – 14 Apr 2020
6. (2.9)	Thai students to EU program universities (CULS)	M10 15 Jul- 14 Aug. 2020
7. (2.10)	Employment assessment of the first batch of graduates (tracer study) (KKU & CULS)	M11 - M12 15 Aug. – 14 Oct 2020
8. (3.5)	Guest lectures provided by EU partners and representatives of enterprises at Thai participating HEIs (1 Day at Thai Partner Univ.)	M6 & M10 15 Mar – 15 Apr, 15 Jul-14 Aug 2020
9. (4.4)	Promotion of the innovative DDMP PISAI in cooperation with farmers and private sectors in the supply chain and neighboring countries (Cambodia or Vietnam or Laos)	M1-M12 15 Oct 19 – 14 Oct 2020
10. (4.5)	Building and offering practical extension courses (at Thai universities)	M5-M8 15 Feb – 14 Jun 2020
11. (4.6)	Publication of project outputs in media, newsletter, scientific meetings, different forms, live video on Facebook	M1-M12 15 Oct 19 – 14 Oct 2020
12. (5.4)	Final Project Conference to disseminate research and project outputs (at KKU)	M7-M10 15 Apr – 14 Aug 2020
13. (5.5)	Preparation of reports	M9-M12 15 Jun – 14 Oct 2020



EU Partners in the Key Activities

Activities	Place	Year	EU Partner	Number of Staff
Review of Program	Bangkok	1	UCPH, SupAgro	1, 1
Guest Lectures (WP3.5)	KU, PSU, CMU, KKU	2	UCPH, SupAgro, CULS, UHEL	1, 1, 1, 1
		3	UCPH, SupAgro, CULS, UHEL	1, 1, 1, 1
Thesis committee, review of progress	KU, PSU, CMU, KKU	2	UCPH, SupAgro, CULS, UHEL	On-line communication
		3		
Dissemination & Exploitation (Meeting on Sustainable Agriculture)	Thailand (Bangkok)	3	UCPH, SupAgro, CULS, UHEL	1, 1, 1, 1
Thesis defense and PISAI Conference	KU, PSU, CMU, KKU	3	UCPH, SupAgro, CULS, UHEL Agrinatura	2, 2, 2, 1, 1
Travel cost and cost of stay			UCPH	6
			SupAgro	6
			CULS	4
			UHEL	4
			Agrinatura	1



Participation of EU Teaching Staff in modules during the project lifetime (15 Oct. 2017 - 14 Oct. 2020)

Module	Place	Cohort	EU Partner	Number of Staff
Module 1 (Production)	KU	1	UCPH, SupAgro	1, 1
		2	UCPH	1
Module 2 (Production environment)	KKU	1	IRD (Agrinatura), SupAgro	1, 1
		2	IRD (Agrinatura)	1
Module 3 (Post harvest, Processing and Marketing)	CMU	1	CULS	1
		2	CULS	1
Module 4 (Field Attachment)	PSU	1	-	-
		2	-	-
Travel cost and cost of stay	UCPH			2
	SupAgro			2
	IRD (Agrinatura)			2
	CULS			2



Student Recruitment and Selection

Proposed Approach	Timeline	Tool
Each Thai Partner recruits 4 M.Sc. students/year into existing programmes	1 st cohort: April- May 18 2 nd cohort: April – May 19	On-line Application
Selection by 2 involving Univ. according to set criteria	1 st cohort: June-July 18 2 nd cohort: June-July 19	On-line communication and Skype
Identify thesis advisors from partner univ. And proposed study plan	1 st cohort: June-July 18 2 nd cohort: June-July 19	On-line communication and Skype
Identify an EU partner for the thesis committee	1 st cohort: June-July 18 2 nd cohort: June-July 19	On-line communication and Skype
Student Enrollment	1 st cohort: August 18 2 nd cohort: August 19	



Management and Quality Assurance

PISAI Consortium and Management Committee (PCMC)

- Coordinators of the Thai universities - PSU, KU, CMU, KKU
- Coordinators of the EU Institutes - SupAgro, UCPH, CULS, UHEL, Agrinatura

MoU

- Thai universities - PSU, KU, CMU, KKU
- Associate Partners
- EU Partners – Need discussion

External assessment and a self monitoring process will be in place.



Erasmus+ Budget and Funding Rules

Budget Categories	Eligible costs	Funding Mechanism
Staff costs	Contribution to the costs of staff performing tasks which are directly necessary to the achievements of the project's objectives	Unit costs ¹
Travel costs	Contribution to the travel costs (including visa fee, travel insurance, cancellation costs, etc.) of the students and staff involved in the project	Unit costs ¹
Costs of stay	Costs for subsistence, accommodation, local and public transport, personal or optional health insurance	Unit costs ¹
Equipment	Contribution for the purchase of equipment necessary for the implementation of the project. Only for the benefit of the HEIs in the Partner Countries	Real costs
Subcontracting	Support for sub-contacting costs that are necessary to the implementation of the project, including, costs for the compulsory financial audits and for any external quality assurance procedure.	Real costs

¹ Unit cost according to EU



Budget and Funding Rules

Approved Co-funding Grant			Total (Euro)
P1	Prince of Songkla University (PSU)	Thailand	201,755
P2	Kasetsart University (KU)	Thailand	136,305
P3	Chiangmai University (CMU)	Thailand	139,640
P4	NSTITUT NATIONAL D'ETUDES SUPERIEURES AGRONOMIQUES DE MONTPEL	France	60,780
P5	KOBENHAVNS UNIVERSITET (UCPH)	Denmark	110,540
P6	Khon Kaen University (KKU)	Thailand	132,675
P7	CESKA ZEMEDELKA UNIVERZITA V PRAZE (CULS)	Czech Republic	31,110
P8	University of Helsinki (UHEL)	Finland	30,470
P9	Agrinatura	France	22,590
Breakdown		Euro	
1. Staff cost		181,290	
2. Travel cost		159,835	
3. Cost of stay		435,240	
4. Equipment cost		40,000	
5. Subcontracting cost		49,500	
Total Grant		865,865	



Budget –Thai Partner Universities

Equipment			
Work Package	Partner	Specifications of the item	Amount excluding vat (EUR)
Development	P1 (PSU)	Field equipment for student research	10,000.00
Development	P2	Field equipment for student research	10,000.00
Development	P3	Field equipment for student research	10,000.00
Development	P6	Field equipment for student research	10,000.00

Subcontracting cost - Production of promotional materials			
Work Package	Partner	University	Euro
Dissemination & Exploitation	P2	Kasetsart University (KU)	1,000.00
Dissemination & Exploitation	P3	Chiangmai University (CMU)	1,000.00
Dissemination & Exploitation	P6	Khon Kaen University (KKU)	1,000.00



Budget and Funding Rules

A Partnership Agreement to be signed in the 6 months following the starting of the project.



Project Meeting and Communication

- Monthly Communication for the progress of activities via Skype or
- Internet tools for different tasks
- Consortium – Steering committee meeting as indicated in the work plan



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THANK YOU FOR YOUR GREAT SUPPORT & COLLABORATION

Chutima Tantikitti
Coordinator
Faculty of Natural Resources



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ANNEX 13



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Kick-off meeting photo





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Time line and Deadline for important tasks

Activities	Deadline
-MOU between Thai partners for the DDP (Proof of the draft by each Thai partner Univ. sent to PSU)	19 February 2018
-Revise Module 1-3	Middle of February 2018
-Partnership Agreement finalized	End of February 2018
Workshop at CMU for program management and guideline among Thai Partner university	8-9 March 2018
MOU Signed between Thai partners for the DDP at PSU	Tentatively by the end of March 2018
Final Contents of Module submitted to PSU for circulation for the review by partners	End of March 2018
Send quotation (ใบเสนอราคา) of field equipment together with invoice	April 2018
Nomination of Teaching Staff Candidate to go EU universities for 7 days	31 May 2018
Purchase of field equipment	October 2018

Project Meeting every 2 months

Meeting Schedule	Date
#1	15 March 2018
#2	15 May 2018
#3	16 July 2018
#4	17 September 2018
#5	15 November 2018
#6	15 January 2019
#7	15 March 2019
#8	15 May 2019
#9	15 July 2019
#10	16 September 2019
#11	15 November 2019
#12	15 January 2020
#13	15 January 2020
#14	15 March 2020
#15	15 May 2020
#16	15 July 2020
#17	16 September 2020