

Participatory and Integrative Support for Agricultural Initiatives (PISAI)

Module 3 – Challenges and opportunities for Sustainable Agricultural Production

1. Scope The students are placed in a position of actively analysing the agricultural production systems, and their results and mechanisms in the central areas of Thailand. A series of lectures before the fieldwork will support this research by providing necessary tools, methods and knowledge.

Two “periods” or “sessions” are identified along the whole duration of the module.

During the first week –from March 17 to March 23, 2019 at the students will be based at the Faculty of Agriculture, Kasetsart University. Students will be allocated in groups and prepare the fieldwork by investigating the specific conditions of agriculture in the Eastern part of the Central Plain, and identifying key challenges for sustainable agriculture. They will develop research questions and associated methodological approaches to to be used during the second period.

The second part of the module takes place at in Pak Chong District, Nakhon Rachasrima Province (around two and half hours from Bangkok), from March 24 to April 5, 2019. 4 villages have been identified to represent the diversity of the situations in the district : one in Moo 5 Ban Nong Makrut (field crops, fruits), Nong-Nam-Deang Subdistrict, two in Klang Dong Subdistrict (Moo 2 Ban Bun Bandan, Moo 14 Ban Chonlaprathan) (field crops, fruits) and one in Moo 10 Ban Takhian Thong, Khanong Phra Subdistrict (more dairy). Students will be accommodated in dormitories at the National Corn and Sorghum Research Center (Suwan farm). During this second period, students will continue working in small groups to assess the diverse farming systems that are represented in the area and identify the different options for their sustainable development.

At the end of the field course students will present their findings to the local organisations and local farmers.

2. Team Leader: Kasetsart University (Dr Buncha Chinnasri)
 Member: 1. University of Copenhagen (Dr Thilde Bech Bruun)
 2. Montpellier SupAgro (Dr Didier Pillot)

3. Period 17 March, 2019 to 5 April 2019 (Three weeks)

4. General Learning Objectives

- 1) Describe and define central concepts and terms within farming system analysis (agricultural production)
- 2) Critically discuss theoretical and methodological approaches to interdisciplinary studies of agricultural production
- 3) Critically evaluate contemporary theories within sustainable land use and agricultural intensification
- 4) Translate theoretical knowledge into practical solutions that are suitable for a given context
- 5) Select relevant methods and construct a research plan for investigating a real-life “problem” related to agricultural production
- 6) Apply selected methods in the field
- 7) Analyse and report collected field data
- 8) Reflect on research plan and reliability of collected data
- 9) Generalize and reflect on results observed/obtained at the case level to broader issues of agricultural production, sustainability, self-sufficiency, natural resource management

Arrival date of participants:			
<p>*Session 1 (At university) : 8 days (in Bangkok) Learning Objective(s):</p> <ol style="list-style-type: none"> 1) Breaking the ice between participants from different origins and being able to identify the capacities of the other students 2) General introduction to the study site 3) Get the skills for an analysis of the climatic, environmental, socio-economic constraints of crop production 4) Get the skills for soils observation and distinction (classification), agricultural intensification theories, adaptation theories, farmers’ decision making processes, food security and safety issues 			
Date	Time	Topics	Resource persons/Remarks
Day 1 (Sunday 17 Mar 2019)		Arrival of students and faculty members at Kasetsart University, Bangkok Campus. PISAI students will stay at the dormitory of the Faculty of Forestry (60 Year Anniversary Building). Professors will stay at KU Home	Team from the Faculty of Agriculture

Date	Time	Topics	Resource persons
<p>Day 2 (Monday 18 Mar 2019)</p>	<p>9:00-16:00</p>	<p>09:30-10:30 Presentation of the participants (students and staffs, observers). General objective of the research. Discussion of the overall organisation of the programme. First identification of the main knowledge domains for which information should be gathered and processed before fieldwork (by groups)</p> <p>10:30-11:00 Coffee Break</p> <p>11:00-12:00 Invited Lecture: Agricultural Policies in Thailand: Past, Present, and Future (By Dr. Nipon Poapongsakorn, Thailand Development Research Institute, TDRI)</p> <p>12:00-13:30 Lunch</p> <p>Afternoon: 13:30-14:30 Invited Lecture: National Farmers Council: Significant Roles in Agricultural Development in Thailand (By Mr. Papat Panyachartrak, Chairman of the Thailand National Farmers Council</p> <p>14:30-15:00 Coffee Break</p> <p>15:00-16:00 Presentation of the survey area, Pak Chong District (Nakhon Rachasrima Province) (by Dr Buncha Chinnasri). Distribution of the materials for analysis (satellite images, maps, access to information sources,...) Group work: Updating the general research objective and list of knowledge domains to be explored. Feedback of the group work, synthesis and setting up the final groups</p>	<p>at Wachiranusorn Building Room 302 (Day 2-Day6)</p> <p>Didier, Thilde, Buncha, Team from the Faculty of Agriculture</p>
<p>Day 3 (Tuesday 19 Mar 2019)</p>	<p>9:00-16:00</p>	<p>Morning Group work on identified knowledge domains (Whole morning)</p> <p>Afternoon Invited guest talk (Faculty members from the Faculty of Science): Identifying and understanding the climate constraints. Methodological questions (Dr.Prayad Nantasin, Dr.Panu Trivej...)</p> <p>Discussion</p> <p>Break Invited guest talk: The formation of the central plain of Thailand and Chao Praya Basin. Consequences on topography and soils diversity (Dr.Prayad Nantasin, Dr.Panu Trivej...)</p>	<p>Didier, Thilde, Buncha, Team from the Faculties of Science and Agriculture</p>

Date	Time	Topics	Resource persons
Day 4 (Wednesday 20 Mar 2019)	9:00- 16:00	<p>Morning Groupwork : the steps of the systems diagnosis: landscape analysis, historical surveys, identification of stakeholders strategies (Didier) Group work continuation</p> <p>Afternoon Group work continuation 3:30 PM : General session - Feedback from the groups</p>	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 5 (Thursday 21 Mar 2019)	9:00- 16:00	<p>Morning Introductions to farmer's decision making Environmental versus social and economic constraints. (Thilde)</p> <p>Exercises</p> <p>Continuation of the groupwork</p>	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 6 (Friday 22 Mar 2019)	9:00- 16:00	<p>Morning Economic assessment of the utilization of natural resources: Foreseeing impact of the current transformations in the next 10 to 30 years (by Assist. Prof. Dr. Penporn Janekarnkij, Faculty of Economics)</p> <p>Afternoon Presentation of the results of the groupworks by the groups Fine tuning the preliminary research questions Preparation of the tools (observation guide, questionnaires, ...) by groups</p>	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 7 23 March (Saturday)		Free Time	
Day 8 24 March (Sunday)		<p>Morning: Free Time (National Election Day): Casting ballots to elect new Thai Prime Minister!!!!</p> <p>13: 00 Leave for Pak Chong District, Nakhon Rachasima Province via bus transportation at Wachiranusorn Building/ the Faculty of Forestry (60 Year Anniversary Building)</p>	Didier, Thilde, Buncha, Team from the Faculty of Agriculture

Session 2 (In the field): 12 days in Nakhon Rachasrima Province

Learning Objective(s):

- 1) Be able to identify the diversity of the natural conditions of agriculture (climate, soils, water)
- 2) Be able to identify, characterise and assess the various cropping systems (identification and broad characterisation)
- 3) Be able to identify constraints to agricultural production in the study area
- 4) To identify the interactions within and between systems
- 5) Be able to conduct field based research according to a research plan
- 6) Be able to assess challenges and opportunities for sustainable agricultural production in the study site

Date	Time	Topics	Resource persons
<p>Day 9 (Monday 25 Mar 2019)</p>	<p>9:00-17:00</p>	<p>Morning (at Suwan farm) Meeting with local government officials e.g. agricultural extensionists in the areas, district and sub-district headmen etc. General observation of the area (bus tour) Lunch break Afternoon (Pak Chong): Landscape/land use observation and analysis Transect walks by groups in Pak Chong After dinner Analysing the data (per group) and preparing the feedback for the next morning</p>	<p>Didier, Thilde, Buncha, Team from the Faculty of Agriculture</p>
<p>Day 10 (Tuesday 26 Mar 2019)</p>	<p>9:00-17:00</p>	<p>Morning (at Suwan farm) Feedback session on landscape analysis Preparation of the historical surveys about the transformations of the agricultural activities in the area Lunch break Afternoon (Pak Chong): Historical surveys Identification of the cropping systems, cropping calendars, value chains involved, problems and questions raised..., Interviews, questionnaires, land use history timeline After dinner (at Suwan farm): Analysing the data (per group) and preparing the feedback for the next morning</p>	<p>Didier, Thilde, Buncha, Team from the Faculty of Agriculture</p>

Date	Time	Topics	Resource persons
Day 11 Wednesday 27 Mar 2019	9:00- 17:00	Feedback on history and problem identification Lunchbreak Afternoon (Pak Chong) Organising the investigation of problems identified (in groups)	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 12 Thursday 28 March	9:00- 17:00	Whole day(Pak Chong) Investigation of problems identified (in groups)	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 13 Friday 29 March	9:00- 17:00	Whole day (Pak Chong) Investigation on the problems identified (in groups)	Didier, Thilde, Buncha, Team from the Faculty of Agriculture
Day 14 Saturday 31 March 2019	9:00- 17:00	Morning (at Suwan farm) Preparation of feedback session about the problems Sharing session between groups Afternoon (Pak Chong) Control interviews about the problems	Thilde, Buncha, Team from the Faculty of Agriculture
Day 15 Sunday 31 March 2019	9:00- 17:00	Trip arrangement to Kao Yai National Park (waterfalls and forest etc.), PB Valley Khao Yai Winery, Palio Kao Yai Shopping Center	Didier, Buncha, Team from the Faculty of Agriculture
Day 16 Monday 1 April 2019	9:00- 10:00 10:00- 11:00 11:00 12:00 13:00- 17:00	Morning (at Suwan farm) Information by resource person (Dr. Chokechai Aekatasanawan Director of Suwan farm) Information by resource person Assoc. Prof. Dr. Somkiert Prasanpanich Work session on problems vs stakeholders' strategies Preparation of further surveys of stakeholders' strategies / impact of problems identified in week 2 Lunch break Afternoon (Pak Chong): Continuation of the surveys of stakeholders' strategies / impact of problems After dinner (at Suwan farm): Analysing the data (per group) and preparing the feedback for the next morning	Didier, Buncha, Team from the Faculty of Agriculture

Date	Time	Topics	Resource persons
<p>Day 17 (Tuesday 2 April 2019)</p>	<p>9:00-12:00</p> <p>13:00-15:00</p> <p>15:30-17:00</p>	<p>Morning (Pak Chong) Continuation of the surveys of stakeholders' strategies / impact of problems</p> <p>Lunch break</p> <p>Afternoon (at Suwan farm): Information by resource person (Assoc. Prof. Dr. Kannika Sajjaphan, Soil Microbiology Expert and team)</p> <p>Working on the data collected, preparation of the feedback</p> <p>/Feedback session. Building a typology of stakeholders and identifying impact /type</p> <p>After dinner (at Suwan farm): Preparation of the session on individual research proposals presentations (April 5)</p>	<p>Didier, Buncha, Team from the Faculty of Agriculture</p>
<p>Day 18 (Wednesday 3 April 2019)</p>	<p>9:00-17:00</p>	<p>(at Suwan farm/Pakchong) Report preparation for feed-back session with local stakeholders and authorities</p>	<p>Didier, Buncha, Team from the Faculty of Agriculture</p>
<p>Day 19 (Thursday 4 April 2019)</p>	<p>9:00-12:00</p> <p>12:00</p> <p>13:30</p>	<p>Morning (at Suwan farm) Feedback session with local stakeholders and government officials.</p> <p>Lunch</p> <p>Leaving the National Corn and Sorghum Research Center, Nakhon Rachasrima Province for Bangkok</p> <p>Afternoon (back to Bangkok): Preparation of the individual PISAI thesis research proposals presentations</p>	<p>Didier, Buncha, Team from the Faculty of Agriculture</p>
<p>Day 20 (Friday 5 April 2019)</p>	<p>9:00-17:00</p>	<p>Morning (Kasetsart) Presentation of students' research proposals and thesis (PISAI students).</p> <p>Afternoon Presentation of students' research proposals and thesis (PISAI students).</p> <p>3:30 PM : Evaluation of the module 4.30 PM: Closure of the module</p>	<p>at Wachiranusorn Building Room 302</p> <p>Didier, Buncha, Team from the Faculty of Agriculture</p>