

Course Outline

Annual International Training Course

Theme: Climate Change and Environmental Issues

1. Course Title: Climate Smart Agriculture: Smart Farming Practices

2. **Duration:** 3 Weeks

3. Background:

Thailand International Cooperation Agency (TICA)

TICA is a national focal point for Thailand's international development cooperation. It was established in 2 0 0 4 to realize Thailand's aspiration to be a contributor of development cooperation. Believing that global challenges are best addressed by international cooperation and global partnership, TICA continues to work closely together with its development partners to realize the global development agenda through various capacity-building and human resources development programmes. In response to the recent changes in the global landscape of development cooperation, TICA has strengthened its partnerships to harness the synergy of South-South and Triangular Cooperation to tackle global development challenges, including expediting the implementation of Sustainable Development Goals (SDGs). It also continues to realign our focuses in order to deliver Thailand's commitment as a global reliable partner.

Since 1991, TICA, in collaboration with educational institutions in Thailand, has offered short-term training courses under its Annual International Training Course (AITC) programme. The number of courses offered each year varies between 25 to 35 courses for 20-35 participants per course. AITC not only fosters good and friendly relations which Thailand has already enjoyed with recipient countries across regions, but also helps Thailand to reach out to those countries with which we desire to engage more closely. The courses offered by TICA in 2023-2025 are categorized into 5 themes: Sufficiency Economy Philosophy (SEP), food security, climate change and environmental issues, public health and BCG Model related.

Organization/Institution

School of Science, Walailak University

Walailak University is a residential university equipped with modern educational facilities, services and accommodation for students and staff, located against a beautiful backdrop of mountain scenery in Nakhon Si Thammarat Province, Thailand. The University has a total area of 3,600 acres, making it the largest campus of any university in Thailand. Established in 1999, the School of Science at Walailak University is one of the leading institutes in science in southern Thailand. The faculty focuses on producing a number of qualified researchers to serve industrial needs. It currently consists of five departments namely, Biology, Physics, Chemistry, Mathematics and Statistics, and Marine Science Departments. This training course will be conducted by Center of Excellence for Ecoinformatics and School of Science, Walailak University.

Course background

Crop production is vital to global food security strongly affected by climate change all over the world, and more severe in impoverished communities. In the next decade, climate change would be a main cause of shortages of water and food and greater risks to health and life for billions of people living in developing countries. With fewer social, technological and financial resources for adapting to changing conditions, developing countries are the most vulnerable to the impacts of climate change (UNFCCC, 2007). Climate-smart Agriculture is defined by the Food and Agriculture Organization (FAO) as agriculture that sustainably increases productivity, enhances the resilience of livelihoods and ecosystems, reduces and/or removes greenhouse gases (GHGs) and enhances the achievement of national food security and development goals. Climate-smart agriculture production contributes to food security, by addressing different aspects of current climate change impacts through adaptation and mitigation actions. The agriculture sector is not only among the most vulnerable sectors to the impacts of climate change, it is also directly responsible for 14 percent of global greenhouse gas emissions. In addition, the sector is a key driver of deforestation and land degradation, which account for an additional 17 percent of emissions. The agricultural sector can be an important part of the solution to climate change by capturing synergies that exist among activities to develop more productive food systems and improve natural resource management.

Climate-smart agriculture is rooted in sustainable agriculture and rural development objectives which, if reached, would contribute to achieving the Millennium Development Goals (MDGs) of reducing hunger and improved environmental management. More productive and resilient agriculture is built on the sound management of natural resources, including land, water, soil and biodiversity. Conservation agriculture, agroforestry, improved livestock and water management, integrated pest management and ecosystem approaches to fisheries and aquaculture can all make important contributions in this area. Our knowledge and practices should be firmly rooted in the rich culture and heritage of the people of southeast Asia to enable them to grow into responsible citizens through consciously practicing Climate Smart Agriculture in view of climate change and its effects.

In setting out this framework for the training on climate smart agriculture using smart farming practices, we provide for the ambitions of sustainable living through climate smart agricultural practices by empowering learners with the necessary skills in view of the changing climate. Climate smart agriculture looks at the prosperity of the people of developing countries for improved living, better quality of life, for growth and development, for improved agricultural practices that take cognisance of the changing climate incorporate new sensor and IoT technology to manage their farms.

The 21st century is a time of rapid technological growth and social change and this workshop is aiming at ensuring that the people of all developing countries are well prepared to meet the challenges of climate change. They should also be able to explore the opportunities for improved agricultural outputs in view of the changing climate using smart farming practices. The training on climate smart agriculture using smart farming practices has to prepare both the youth and adults not just for the day to-day but for the changing life ahead and in particular climate changes.

The training on climate smart agriculture using smart farming practices at Walailak University should instil confidence in individuals and all agricultural practitioners to face the challenges of climate change ahead of them and they need to develop love and appreciation for good agricultural practices that will address climate change issues. The individuals should also become successful life-long learners and continue to operate/live effectively through practicing the appropriate agricultural methods in a rapidly changing climate.

To achieve the ambitions of climate smart agriculture using smart farming practices, we need a vibrant and dynamic workshop. A climate-smart agriculture workshop at Walailak University will provide challenges to individuals/farming practitioners/people through use of inquiry based learning and research based approach that will stimulate and inspire everyone to practice. Understanding the actual impacts of climate change in various sectors especially in agriculture is critical for purposes of sustainability and moving in the right direction. Under the Center of Excellence for Ecoinformatics, School of Science, Walailak University, we have more than 15 years of experience implementing sensor technology, automatic weather stations, soil stations with soil moisture/temperature sensors, leaf-wetness sensors, eco-camera, IoT technology in agriculture. We are experts on utilized weather and soil data for smart-agriculture and frequently do training for farmers in various crops e.g. corns, coffee, Siam ruby pomelo, mangosteen and also shellfish aquaculture. Training in climate smart agriculture using smart farming practices at Walailak University will create awareness, provide knowledge and management skills, disseminate and replicate best practices on climate smart agriculture adaptation and mitigation approaches for improved agricultural yields/production and improved quality of living.

4. Objectives

The program is designed to

- 4.1. To strengthen the current agricultural training programmes to be responsive to the climate change challenges and sustainable development
- 4.2. To build a critical cadre of human resource who will promote/practice of climate smart agriculture adaptation and mitigation.

5. Course Contents

5.1 Course Outline

| Day | Key concepts/activities |
|---|---|
| Monday 29 Apr 2024 (Lecture 6 hrs) | Opening ceremony Opening speech from Walailak University President, Prof. Dr. Sombat Thamrongthanyawong Welcome speech from TICA Participants introduction Walailak University Campus Tour |
| Tuesday 30 Apr 2024 (Lecture 6 hrs) | Why Climate-smart agriculture? Food security and climate change. More efficient and resilient systems. Increase systemic efficiency and resilience: policies, institutions finances. Class announcement, daily photos and VDO clips of each lecture will be posted daily at this Facebook Page. 1. Why climate smart agriculture? 2. Climate change impacts on crop production |
| Wednesday 1 May 2024 (Lecture 6 hrs) | Climate smart agriculture includes proven practice techniques: 1.crop rotation and 2.intercropping |
| Thursday 2 May 2024 (Lecture 6 hrs) | Climate smart agriculture includes proven practice techniques: 1.Agroforest, 2.Mulching, 3.Water management, 4. Agriculture and green house gas. |
| Friday 3 May r 2024 (Lecture 6 hrs) | Overview of SEP. Examples of SEP best practices in agriculture. |
| Saturday 4 May 2024 | Cultural tour in Nakhon Si Thammarat. Visit Nakhon Si Thammarat National Musuem, tasting local foods, watching local puppet museum and cultural show, enjoy local ways of life and buying some local handmade arts and crafts. |

| Sunday 5 May 2024 | Sightseeing at Khanom beach, long tailed boat ride, Indo-pacific dolphin and Fish spa |
|---|--|
| Monday 6 May 2024 (Lecture 6 hrs) | Soil conservation for climate-smart agriculture. Soil health, key functions and soil: plant-water interrelations. Challenges of climate change, adaption, mitigation and enhancing resilience to soils. Successful examples of soil management practices for climate-smart agriculture with a focus on resilience |
| Tuesday 7 May 2024 (Lecture 6 hrs) | Soil water management for climate-smart agriculture. |
| Wednesday 8 May 2024 (Lecture 6 hrs) | Climate smart agriculture innovative practices on weather forecasting, early-warning systems and climate-risk insurance. |
| Thursday 9 May 2024 (Lecture 6 hrs) | Climate smart agriculture innovative practices using sensor technology and IoT. |
| Friday 10 May 2024 (Lecture 6 hrs) | Field trip to Siam Ruby Pomelo and Mangosteen smart farming. Observe good practices in how to manage soil, manage water, fertilizer, pest management, deploying sensors technology in the farm for best product quality. |
| Saturday 11 May 2024 | Visit the Royal-initiated Pak Phanang River Basin Development Project and Royal Residential Hall of Pakpanang. This project aims to resolve the deterioration of the naturally fertile Pak Phanang River basin. Visit local Nipa farm, and their way of life. Take a boat trip to the Gulf of Thailand to see the local fisheries and watching sunset over the Gulf of Thailand. |
| Sunday 12 May 2024 | Jedi Temple, Yangyai Temple, Sichon Beach |
| Monday 13 May 2024 (Lecture 6 hrs) | Climate-smart fisheries and aquaculture. Climate-smart approaches. Practical themes for developing climate-smart |

| | fisheries and aquaculture. Strategic climate-smart approaches for the sector. Progress of fisheries and aquaculture towards climate-smart approach. |
|--|---|
| Tuesday 14 May 2024 (Lecture 6 hrs) | Field trip to visit the Sinmana Farmstay, the largest oyster farm in Thailand. Listen to the best practice and smart fisheries. |
| Wednesday 15 May 2024 (Lecture 6 hrs) | Capacity development for climate-smart agriculture. Assessment, monitoring and evaluation on climate-smart agriculture projects |
| Thursday 16 May 2024 (Lecture 6 hrs) | Participants write a project proposal on the knowledge of climate-smart agriculture from the workshop and show how to implementation climate-smart agriculture in your country. |
| Friday 17 May 2024 (Lecture 6 hrs) | Participants present climate-smart agriculture project. Each participant will have 15 min oral presentation with 15 min for questions and answers. |
| | Closing ceremony and Farewell Party at Walailak Park |

5.2 Practices

The course contains lectures, exercises, study visits and group work. Oral and written presentation of a project is included.

5.3 Study Trips/Field Trips

- 1. Siam ruby pomelo farms
- 2. Mangosteen Orchards
- 3. Sinmana Farmstay

| Day | Field trips/location/date/objectives |
|---------------------|---|
| Saturday 4 May 2024 | Cultural tour in Nakhon Si Thammarat. Visit Nakhon Si Thammarat |

| | National Musuem, tasting local foods, watching local puppet museum and cultural show, enjoy local ways of life and buying some local handmade arts and crafts. |
|----------------------|--|
| Sunday 5 May 2024 | Sightseeing at Khanom beach, long tailed boat ride, Indo-pacific dolphin and Fish spa |
| Friday 10 May 2024 | Field trip to Siam Ruby Pomelo and Mangosteen smart farming. Observe good practices in how to manage soil, manage water, fertilizer, pest management, deploying sensors technology in the farm for best product quality. |
| Saturday 11 May 2024 | Visit the Royal-initiated Pak Phanang River Basin Development Project and Royal Residential Hall of Pakpanang. This project aims |
| | to resolve the deterioration of the naturally fertile Pak Phanang River basin. Visit local Nipa farm, and their way of life. Take a boat trip to the Gulf of Thailand to see the local fisheries and watching sunset over the Gulf of Thailand. |
| Sunday 12 May 2024 | River basin. Visit local Nipa farm, and their way of life. Take a boat trip to the Gulf of Thailand to see the local fisheries and watching |

5.4 Advance Assignments

5.4.1 Country Report

5.4.1.1 Participants are required to submit a country report together with an Application Form and present a country report during the workshop.

5.4.1.2 Country report should include these followings

Topics: general information of the country, historical background of the climate-smart agriculture of the country, existing laws and regulations concerning the climate-smart

agriculture, existing problems in the applicants' section, future program/project on the climatesmart agriculture, and expectation for the training course.

Materials: statistical data/data/figures are required where it is applicable.

Length: 3-5 A4 pages, Times News Roman font 12 points, single space

Dateline: submit a country report form together with an Application Form 2 months before the workshop starts.

Country Report Form: see appendix A

5.4.2 Reading Assignment

Cambridge University (2013). Climate Change: Action, Trends and Implications for Business.

Climate-Smart Agriculture Manual for Zimbabwe. (2017). Climate Technology Centre and Network, Denmark.

IISD, UNITAR & UNEP. (2009). IEA Training Material: Vulnerability and Climate Change Impact Assessment for Adaptation.

IPCC. (2013). Climate Change 2013. The Physical Science Basis -Summary for Policymakers.

OECD. (2009): Guidance on Integrating Climate Change Adaptation into Development Cooperation.

UNEP. (2009). Climate Change Science Compendium

UNEP. (2009). Climate in Peril, a Popular Guide to the Latest IPCC Report.

UNEP & UNDP. (2011). Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners.UNFCCC. CGE Climate Change Training Materials.

UNFCCC. (2008). Compendium on Methods and Tools to Evaluate Impacts of, and Vulnerability and Adaptation to, Climate Change.

UNFCCC. (2006). UNFCCC Handbook.

UNFCCC & UNEP. (2002). Climate Change Information Kit.

World Bank Report. (2012). Turn Down the Heat.

World Meteorological Organization. (2012). Greenhouse Gas Bulletins.

5.4.3 Project Assignment

| Day | Project Assignment |
|----------------------|---|
| Thursday 16 May 2024 | Participants write a project proposal on the knowledge of climate-smart agriculture from the workshop and show how to implementation climate-smart agriculture in your country. |
| Friday 17 May 2024 | Participants present climate-smart agriculture project. Each participant will have 15 min oral presentation with 15 min for questions and answers. |

5.4.4 Others

Participants should bring a computer notebook and information that is relevant to climate-smart agriculture project in your country.

6. Participants' Criteria

Applicants must fulfill the following requirements:

- Be nominated by their respective governments
- Education: BSc, Master degree or PhD degree in Agriculture and related areas.
 Ministry of Agriculture, provincial department and local authorities;
 Environmental managers in private sector and civil society organizations; Faculty, researchers and students; farmers and Interested citizens
- Language: proficiency in English (speaking, reading and writing)

Walailak University is expected to have a various and flexible participants from all developing countries around the globe who are interested in training on climate smart agriculture. The course provides clear, concise and up-to-date information for anybody interested in obtaining a general understanding about climate smart agriculture. The course should be of particular interest to the following audiences: Civil servants in national ministries, provincial departments and local authorities; Environmental managers in private

sector and civil society organizations; Faculty, researchers and students; farmers and Interested citizens.

7. Attendance and Evaluation

Participants who complete the training will receive a certificate based on

- Real-time class attendance (not less than 80%)
- Interactive class participation
- Presentation and report
- Evaluation

The type of assessment to be used will involve continuous both formative and summative assessments. The Assessment tools include some of the following: projects, assignments, theoretical exams, practicals field trials, using the science laboratory and computer labs, field attachment and participatory assessment e.g. presentation to stakeholders farmers /students.

8. Venue:

Workshop location: Walailak University, Nakhon Si Thammarat, Thailand **Accommodation:** Walailak Hospitality Center in Nakhon Si Thammarat, Thailand

9. Expected Results:

The workshop should enable trainees to:

- 1. Demonstrate an in-depth understanding of Climate Smart Agriculture
- 2. Promote technical skills for a transition to a greener economy
- 3. Conduct cutting edge climate smart agriculture Research and/or activities in their countries
- 4. Think, communicate, cooperate and solve problems from interdisciplinary perspectives on climate smart agriculture issues adequately
- 5. Promote social innovations and practices for climate smart agriculture in their countries
- 6. Formulate ethical problems and clearly communicate possible solutions orally and in writing at the appropriate levels for a given audience

10. Organization/Institution:

Implementing Agency:

School of Science, Walailak University

222 Thasala, Nakhon Si Thammarat 80161 Thailand

Tel: +66-075-672005-6, Fax: +66-075-672004

Contact Person

(1) Assoc. Prof. Dr. Krisanadej Jaroensutasinee (Sensors and Smart Agriculture expert)

School of Science, Walailak University, email: krisanadej@gmail.com

(2) Assoc. Prof. Dr. Mullica Jaroensutasinee (Data Analysis expert)

School of Science, Walailak University, email: mullica.jn@gmail.com

Present Facilities

1. Staff

School of Science, Walailak University has 52 faculty members with more than 90% PhD. degree and 17 academic staff to organize this workshop as lectures and supporting staff. In addition, we also invite 3 faculty members from School of Agriculture Science to gave some special lectures on agriculture.

2. Training Materials/Equipment Availability

Walailak University has a modern centralized laboratory and equipments, workshop participants will be trained in the modern laboratory and plenty of equipments required by the workshop.

3. Accommodation

Participants will be staying at the Walailak Hospitality Center. In-Room Facilities with 24/7 Service to ensure your enjoyable and comfortable, free Shuttle service within campus (upon requested), Laundry Service, Free WiFi internet, Air Conditioned, Television (Cable TV), Mini Refrigerator, Water Heater Shower machine, Hair Dryer, Toiletry included shampoo, soap, shower cap, bath & hand towels, and cotton buds, Towels and Complimentary Drinking water (2 bottles per day).

Collorborative Organization

- 1. School of Science, Walailak University
- 2. School of Agricultural Science, Walailak University
- 3. Smart Siam ruby pomelo farms
- 4. Smart Mangosteen Orchards
- 5. Sinmana Farmstay

11. Expenditure/Funding

Thailand International Cooperation Agency (TICA)

Government Complex, Building B (South Zone), 8th Floor,

Chaengwattana Rd., laksi District, Bangkok 10210 THAILAND.

Website: www.tica.thaigov.net

Email: <u>aitc@mfa.go.th</u>

Schedule for the Training Programme:

Course Schedule "Climate Smart Agriculture: Smart Farming Practices"

29 April-17 May 2024

| Period/Topic | Time | Content | Lecture (hrs) | Practices | Speaker | Note |
|--------------|-------------|-------------------------------|---------------|-----------|-----------|------|
| D 4 | | | | (hrs) | | |
| Day 1: | | | | | | |
| Monday 29 | 8.00-9.00 | Registration | | | | |
| Apr 2024 | | | | | | |
| | 9.00-10.00 | 1.Opening Ceremony with | 1 | | WU CIA | |
| | | Special talk by Prof. Dr. | | | | |
| | | Sombat | | | | |
| | | Thamrongthanyawong, the | | | | |
| | | President of Walailak | | | | |
| | | University on "Climate Smart | | | | |
| | | Agriculture, the way Walailak | | | | |
| | | University moving forward"2. | | | | |
| | | Remarks to participants By | | | | |
| | | Director, General of Thai | | | | |
| | | International Cooperation | | | | |
| | | Agency (TICA) 3. Presentation | | | | |
| | | of TICA | | | | |
| | 10.00-10.30 | Photo session | | | | |
| | 10.30-12.00 | The presentation of Climate | | 1.5 | Assoc. | |
| | | Smart Agriculture from | | | Prof. Dr. | |
| | | participants | | | Mullica | |
| | | Orientation and Pre-test | | | | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-15.00 | Sharing and knowing each | | 2 | Assoc. | |
| | | other : Participants present | | | Prof. Dr. | |
| | | their country reports on the | | | Mullica | |
| | | climate-smart agriculture in | | | | |
| | | their country | | | | |
| | 15.00-17.00 | Walailak University Campus | | | CIA staff | |
| | | Tour | | | | |

| Day 2: | | | | | | |
|--------------|-------------|----------------------------------|-----------------|---|------------|--|
| Tuesday 30 | 8.00-12.00 | Why Climate-smart | 4 | | Assoc. | |
| Apr 2024 | | agriculture? Food security and | | | Prof. Dr. | |
| | | climate change. | | | Mullica | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | More efficient and resilient | 4 | | Assoc. | |
| | | systems. Increase systemic | | | Prof. Dr. | |
| | | efficiency and resilience: | | | Mullica | |
| | | policies, institutions finances. | | | | |
| | | Climate smart agriculture | | | | |
| | | includes proven practice | | | | |
| | | techniques: 1.crop rotation, | | | | |
| | | 2.intercropping | | | | |
| Day 3: | | | | | | |
| Wednesday 1 | 8.00-12.00 | Drone mapping technology | 4 | | Assoc. | |
| May 2024 | | for monitoring crops and soil | | | Prof. Dr. | |
| | | fertility. | | | Krisanadej | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Hand-on Drone mapping techno | ology for smart | 4 | Assoc. | |
| | | agriculture management | | | Prof. Dr. | |
| | | | | | Krisanadej | |
| Day 4: | | | | | | |
| Thursday 2 | 8.00-12.00 | 1.Agroforest, 2.Mulching, 3. | 4 | | Assoc. | |
| May 2024 | | Agriculture and green house | | | Prof. Dr. | |
| | | gas | | | Mullica | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Assessing risk, preparing | 4 | | Assoc. | |
| | | responses, Water | | | Prof. Dr. | |
| | | management for climate | | | Mullica | |
| | | change mitigation | | | | |
| Day 5: | | | | | | |
| Friday 3 May | 8.00-12.00 | Overview of Sufficient | 4 | | Dr. | |
| 2024 | | Economy Philosophy (SEP) | | | Jintanee | |

| | 12.00-13.00 | Lunch | | |
|-------------|-------------|----------------------------------|---|------------|
| | 13.00-17.00 | Examples of SEP best | 4 | Dr. |
| | | practices in Agriculture | | Jintanee |
| Day 6: | | | | |
| Monday 6 | 8.00-12.00 | Smart fertilization, controlled- | 4 | Assoc. |
| May 2024 | | release formulations, | | Prof. Dr. |
| | | | | Somsak |
| | 12.00-13.00 | Lunch | | |
| | 13.00-17.00 | Higher levels of nutrients | 4 | Assoc. |
| | | reach the crops, leading to | | Prof. Dr. |
| | | higher yields with less | | Somsak |
| | | fertilizer. | | |
| Day 7: | | | | |
| Tuesday 7 | 9.00-12.00 | Soils management for | 4 | Assoc. |
| May 2024 | | climate-smart agriculture. Soil | | Prof. Dr. |
| | | health, key functions and soil: | | Somsak |
| | | plant-water interrelations. | | |
| | 12.00-13.00 | Lunch | | |
| | 13.00-17.00 | Challenges of climate change, | 4 | Assoc. |
| | | adaption, mitigation and | | Prof. Dr. |
| | | enhancing resilience to soils. | | Somsak |
| | | Successful examples of soil | | |
| | | management practices for | | |
| | | climate-smart agriculture with | | |
| | | a focus on resilience | | |
| Day 8: | | | | |
| Wednesday 8 | 8.00-12.00 | Climate smart agriculture | 4 | Assoc. |
| May 2024 | | innovative practices on | | Prof. Dr. |
| | | weather forecasting | | Krisanadej |
| | 12.00-13.00 | Lunch | | |
| | 13.00-17.00 | Climate early-warning systems | 4 | Assoc. |
| | | and climate-risk insurance. | | Prof. Dr. |
| | | | | Krisanadej |

| Day 9: | | | | | | |
|---------------|-------------|--------------------------------|---|---|------------|--|
| Thursday 9 | 9.00-12.00 | Climate smart agriculture | 4 | | Assoc. | |
| May 2024 | | innovative practices using | | | Prof. Dr. | |
| | | sensor technology | | | Krisanadej | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Climate smart agriculture | 4 | | Assoc. | |
| | | innovative practices using IoT | | | Prof. Dr. | |
| | | technology | | | Krisanadej | |
| Day 10: | | | | | | |
| Friday 10 Feb | 8.00-12.00 | Field trip to Siam Ruby | | 4 | Assoc. | |
| 2024 | | Pomelo smart farming. | | | Prof. Dr. | |
| | | Observe good practices in | | | Somsak | |
| | | how to manage soil, manage | | | Assoc. | |
| | | water, fertilizer, pest | | | Prof. Dr. | |
| | | management, deploying | | | Krisanadej | |
| | | sensors technology in the | | | Assoc. | |
| | | farm for best product quality. | | | Prof. Dr. | |
| | | | | | Mullica | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Field trip to Durian and | | 4 | Assoc. | |
| | | Mangosteen smart farming. | | | Prof. Dr. | |
| | | Observe good practices in | | | Somsak | |
| | | how to manage soil, manage | | | Assoc. | |
| | | water, fertilizer, pest | | | Prof. Dr. | |
| | | management, deploying | | | Krisanadej | |
| | | sensors technology in the | | | Assoc. | |
| | | farm for best product quality. | | | Prof. Dr. | |
| | | | | | Mullica | |
| Day 11: | | | | | | |
| Monday 13 | 8.00-12.00 | Climate-smart fisheries and | 4 | | Assoc. | |
| May 2024 | | aquaculture. Climate-smart | | | Prof. Dr. | |
| | | approaches. Practical themes | | | Krisanadej | |
| | | for developing climate-smart | | | | |
| | | fisheries and aquaculture. | | | | |

| | 12.00-13.00 | Lunch at | | | | |
|---------------|-------------|---------------------------------|---|---|------------|--|
| | 13.00-17.00 | Strategic climate-smart | 4 | | Assoc. | |
| | | approaches for the sector. | | | Prof. Dr. | |
| | | Progress of fisheries and | | | Krisanadej | |
| | | aquaculture towards climate- | | | | |
| | | smart approach. | | | | |
| Day 12: | | | | | | |
| Tuesday 14 | 8.00-17.00 | Field trip to visit the Sinmana | | 8 | Team | |
| May 2024 | | Farmstay, the largest oyster | | | | |
| | | farm in Thailand. Listen to the | | | | |
| | | best practice and smart | | | | |
| | | fisheries. | | | | |
| Day 13: | | | | | | |
| Wednesday | 8.00-12.00 | Country report | | 4 | Team | |
| 15 May 2024 | | | | | | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Capacity development for | | 4 | Team | |
| | | climate-smart agriculture. | | | | |
| | | Assessment, monitoring and | | | | |
| | | evaluation on climate-smart | | | | |
| | | agriculture projects | | | | |
| Day 14: | | | | | | |
| Thursday 16 | 8.00-12.00 | Participants write a project | | 4 | Team | |
| May 2024 | | proposal on the knowledge | | | | |
| | | of climate-smart agriculture | | | | |
| | | from the workshop and show | | | | |
| | | how to implementation | | | | |
| | | climate-smart agriculture in | | | | |
| | | your country | | | | |
| | 12.00-13.00 | Lunch | | | | |
| | 13.00-17.00 | Proposal presentation. | | 4 | Team | |
| Day 15: | | | | | | |
| Friday 17 May | 8.00-12.00 | Participants present climate- | | 4 | Assoc. | |
| 2024 | | smart agriculture project. | | | Prof. Dr. | |

| | Each participant will have 15 | | | Mullica | |
|-------------|--------------------------------|-------|------|-----------|--|
| | min oral presentation with 15 | | | | |
| | min for questions and | | | | |
| | answers. | | | | |
| 12.00-13.00 | Lunch | | | | |
| 13.00-14.00 | Workshop Reflection and | | 1 | Assoc. | |
| | knowledge sharing | | | Prof. Dr. | |
| | | | | Mullica | |
| 14.00-16.00 | Post-test and evaluation | | | Assoc. | |
| | | | | Prof. Dr. | |
| | | | | Mullica | |
| 16.00-17.00 | Certificate, Closing ceremony | | | | |
| | and Farewell Party at Walailak | | | | |
| | Park | | | | |
| | | 69 | 44.5 | | |
| | Total | 113.5 | | | |

Appendix A: Country Report Form

Country report should be submitted together with the Application Form in complying the following items.

| 1 | 1 1 | 1 1. |
|----|--------|---------|
| 1 | Introc | luction |
| 1. | HILLOC | iuction |

| 1. Name of the Training Cou | rse: |
|------------------------------|--------|
| 2. Name of applicant: | |
| Home Address: | |
| Phone No. (Home & Office): . | |
| | Email: |
| 3. Name of Country: | |
| • | |
| 3 | |

- 5. Main Tasks of the Organization & Organization Chart
- 6. Applications' Position: Roles and Responsibilities
- II. General Information of the country (1-2 pages of A4 size paper):
- III. Historical Background of the Subject Related to the Training Course (within 1 page of A4 size paper)
- IV. Existing Laws and Regulations concerning the subject (if any)
- V. Existing Problems in the Applicants' section (1-2 pages of A4 size paper)
 - 1. Current problems and/or constraints you are facing (please describe concrete details).
 - 2. Obstacles in the process of solving those problems.
 - 3. Countermeasures of questions for those problems or any idea which you would like to study or solve through the course.
- VI. Future Program/Project on the Related Subject
 - 1. What is the future policy/program/or project concerning with the subject.
 - 2. How the training course is related with those future.

VII. Expectations for the Training Course (up to 1 page of A4 size paper)

- 1. Main interest subject areas or topics in this training course and reasons why you pick up them.
- 2. How do you expect to apply the knowledge and skills received from this training course after you return to your home country.
- 3. Other matters you are expecting for this course (if any) (Basically this training program is fixed and cannot be changed upon your request).