

Annual International Training Courses 2014

1. **Course Title:** Training on Global Warming Mitigation and Adaptation by Sustainable Energy Management (GSEM)
2. **Duration:** July 9 - 25, 2014
Closing Date for Applications: May 21, 2014

3. Rational:

Global Warming is the rising of the mean temperature of the Earth's atmosphere and oceans since the late 19th century. The average surface temperature has increased about 0.8 degree Celsius since the early 20th century. The primary cause is the increasing of the greenhouse gases from fossil fuel and deforestation. The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) is the international treaty developed in order to reduce the greenhouse gases. With limitation of commitment, it is not enough to stabilize the greenhouse gas¹.

The issue of energy is much more getting attention when various studies of global warming lead the people to the conclusion that the energy consumption is one the major causes for global warming. Referring to the Act of Energy Conservation and Promotion B.E. 2535 (1992) together with the Energy Conservation and Promotion Fund, Thailand has been revealing the consciousness and awareness in energy through various programs under the ministry of energy and its departments. The academic sector by many universities in the theme of energy in Thailand is directed toward to the part of mitigation by the technology of energy conservation and renewable energy. The emphasized technology is however causes the unbalance of environmental, social, and economical issues. Thailand is facing with the problem of energy consumption growth whereas the power supply by constructing the new power plant is in the difficulty of making people understand. There is always protest by local community during the preparation or construction of the new power plant. This reflects clearly to the unbalance of three pillars of sustainability.

As the aforementioned situation, Prince of Songkla University has attempted to initiate the master program of Sustainable Energy Management by the faculty of Environmental Management together with the Institute of Systems Sciences, Innovation and Sustainability Research (ISIS) Sustainable, Graz University, Austria. This course pays attention to the area of the environmental, social and economic issues. A part of this program is the 2.5-week training on Global Warming Mitigation and Adaptation by Sustainable Energy Management.

The program aims at building the concept of balancing components in sustainable development. The output of this training is to have a training filling in the gap of the overview picture of the university and country. The participants will be able to disseminate and apply the concept of sustainable energy management aiming to solve the global

warming in their countries. The sustainability in view of self-directed without support from world scheme is the expected outcome.

4. Objectives

- To build the capacity for participants in mitigate and adapt the global warming via the sustainable energy management concept.
- To produce the balancing sustainability towards global warming mitigation and adaptation
- To exchange the international idea of global warming mitigation and adaptation together with the network building among all participants.

5. Course Content:

Week 1 Songkhla (BP Samila Hotel)

04/06/2014

08.30-10.00 Welcome, Register, Introduction, and Documentation

Dr. Kuaanan Techato

10.00-10.30 break

10.30-12.00 Pretest and Orientation

Dr. Kuaanan Techato

13.00-14.30 Introduction to Global Warming Related Energy and Future by TGO

Dr. Pongwipa Losomboon, Thai Green House Gas Organization

14.30-15.00 break

15.00-16.30 Country Paper and Discussion

Dr. Kuaanan Techato / Dr. Saroj Gyawali

05/06/2014

08.30-10.00 Sustainable Development

Dr.Saroj Gyawali

10.00-10.30 break

10.30-12.00 Sustainability Measurement

Dr.Saroj Gyawali

13.00-14.30 Carbon Footprint and Water Footprint

Asst.Prof.Dr.Charongpun Musikawong

14.30-15.00 break

15.00-16.30 Country Paper and Discussion

Dr.Kuaanan Techato / Dr.Saroj Gyawali

06/06/2014

08.30-10.00 Opening, Introduction to Faculty of Environmental Management and PSU

Asst.Prof.Dr. Parichart Visuttisamajarn

10.00-10.30 break

10.30.12.00 Introduction to Energy System Research Institute

Assoc.Prof.Dr.Sumate Chaiprapat

13.00-14.30 Sustainable Energy Management in Songkhla Lake Basin

Dr.Chaiwat Rongsayamanon

14.30-15.00 break
15.00-16.30 Country Paper and Discussion
Dr.Kuaanan Techato / Dr.Saroj Gyawali

Fly to Chiang Mai on 7 June

Week 2 Chiangmai and Phuket (Centara Duang Tawan and Royal Paradise hotel)

09/06/2014

08.30-10.00 Economic Value
Peerapat Jatukannyaprateep
10.00-10.30 break
10.30-12.00 Stated Preference
Peerapat Jatukannyaprateep
13.00-14.30 Revealed Preference
Peerapat Jatukannyaprateep
14.30-15.00 break
15.00-16.30 Country Paper and Discussion
Dr.Kuaanan Techato / Dr.Saroj Gyawali

10/06/2014

08.30-10.00 Sankamparng solar power plant
Asst.Prof.Dr. Sate Sampattakul
10.00-10.30 break
10.30-12.00 Sankampaeng solar power plant
Asst.Prof.Dr.Sate Sampattakul
13.00-14.30 Mae Kampong Micro hydro power plant
Asst.Prof.Dr. Sate Sampattakul
14.30-15.00 break
15.00-16.30 Mae Kampong Micro hydro power plant
Asst.Prof. Sate Sampattagul

11/06/2014

08.30-10.00
Asst.Prof.Dr.Sate Sampattagul
10.00-10.30 break
10.30-12.00
Asst.Prof.Dr.Sate Sampattagul
13.00-14.30 Wrap up Chiangmai Site Visit
Dr.Kuaanan Techato
14.30-15.00 break
15.00-16.30 Question and Answer
Dr.Kuaanan Techato / Dr.Saroj Gyawali
Fly to Phuket 16.00 hr

12/06/2014

08.30-10.00 climate change, GHG emission from energy, industry and waste treatment

Ms.Thanita Areerob and Mr.Pataratorn Ua-Kridathikarn

10.00-10.30 break

10.30-12.00 Electricity generation from waste, waste management, renewable energy

Ms.Thanita Areerob and Mr.Pataratorn Ua-Kridathikarn

13.00-14.30 Environmental Aspects of RE compared to CE and RE Limitation

Ms.Thanita Areerob and Mr.Pataratorn Ua-Kridathikarn

14.30-15.00 break

15.00-16.30 Country Paper and Discussion

Dr.Kuaanan Techato and Dr. Saroj Gyawali

13/06/2014

08.30-10.00 Introduction to Waste Incinerator Power Plant

Asst.Prof.Dr.Thanita Areerob / Dr.Kuaanan Techato

10.00-10.30 break

10.30-12.00 Touring around Waste Incinerator Power Plant

Asst.Prof.Dr.Thanita Areerob / Dr.Kuaanan Techato

13.00-14.30 Wind Turbine

Asst.Prof.Dr.Thanita Areerob / Dr.Kuaanan Techato

14.30-15.00 break

15.00-16.30 Question and Answer

Dr.Kuaanan Techato / Dr. Saroj Gyawali

Fly to Bangkok on 14 June 2014

Week 3 Bangkok and Songkhla

16/06/2014

08.30-10.00 Sustainable Energy Management in City/Energy Research Institute

Chulalongkorn

Prof.Dr.Bundit Auearporn

10.00-10.30 break

10.30-12.00 Management Concept for Project Implementation (ISO)

Dr.Teerawet Titseesang

13.00-14.30 Geography and Global Warming

Dr.Sathaporn Monprapassorn

14.30-15.00 Break

15.00-16.30 Country Paper and Discussion

Dr.Kuaanan Techato / Dr. Saroj Gyawali

Fly to Songkhla

17/06/2014

08.30-10.00 Natural Gas and Jana Power Plant

Dr. Warangkana Jutidamrongpan/Dr kuaanan Techato

10.00-10.30 break

10.30-12.00 Touring around the Power Plant** and Discussion

Dr. Warangkana Jutidamrongpan/Dt. Kuaanan Techato
13.00-14.30 Visit to TTM Plc.
Dr. Warangkana Jutidamrongpan/Dr. Kuaanan Techato
14.30-15.00 break
15.00-16.30 Question and Answer
Dr. Kuaanan Techato / Dr. Saroj Gyawali

18/06/2014
08.30-10.00 Global Warming Mitigation and Adaptation, Case Study of Spanish Mosses
Dr. Nattaya Van Bem C.
10.00-10.30 break
10.30-12.00 Case Study of Rice and Climate Change
Dr. Nattaya Van Bem C.
13.00-14.30 Case Study from other Climate Change
Dr. Nattaya Van Bem C.
14.30-15.00 break
15.00-16.30 Country Paper and Discussion
Dr. Kuaanan Techato / Saroj Guawali

19/06/2014
08.30-10.00 Multi-criteria Decision Making
Dr. Saroj Gyawali
10.00-10.30 break
10.30-12.00 Analytical Hierarchy Process
Dr. Saroj Gyawali
13.00-14.30 Case Study of MCDM
Dr. Saroj Gyawali
14.30-15.00 break
15.00-16.30 Country Paper and Discussion
Dr. Kuaanan Techato / Saroj Gyawali

20/06/2014
08.30-10.00 Wrap up
Dr. Kuaanan Techato
10.00-10.30 break
10.30-12.00 Network Building
Dr. Saroj Gyawali
13.00-14.30 Evaluation
Dr. Kuaanan Techato
14.30-15.00 break
15.00-16.30 Closing Ceremony
Dr. Kuaanan Techato

The purpose of site visiting is to show the development and the real balance in environmental, social, and economical aspect together with the concern of global warming

G1 Dr. Kuaanan Techato, Faculty of Environmental Management, Prince of Songkla University

G2 Asst.Prof.Dr. Sate Sampattagul, Faculty of Engineering , Chiangmai University

G3 Prof.Dr. Bundhit Eua-Arporn, Energy Research Institute, Chulalongkorn University

G4 Dr.Teerawet Titseesang, Siam University

- **Advance Assignment**

Prepare Country Report to present by each participant every day. The format should follow the topic as follows; Introduction, Name of Training Course, Name of Applicant, Home Address, Organization Address, Position/Role/Responsibility/Tasks in Organization, Country Information - Geography, climate, population, language, social, education, and economics, Situation of environment, law, and regulation related to the training topic, Problem related to the training course

- **Reading Assignment**

Please read about Global Warming, Kyoto Protocol, Energy Conservation, Renewable Energy, Sustainable Energy Management, and Sustainability Measurement

- **Project Assignment**

The solving scheme will be assigned to the participants to designed and it will be presented and discussed at the end

- **Culture Assignment**

At the end of the day, participant should prepare a performance to show for cultural exchange

6. Number of Participant: 20 persons

7. Participant Criteria:

- At least bachelor degree in relation to environment, energy, and science.
- At least 2 year working experience
- Related closely to global warming and sustainable energy management
- Be able to bring own lap top computer for the whole training as there would be no hard copy distribution but file distribution

8. Eligible Countries:

Asia & Middle East: Afghanistan, Bangladesh, Georgia, Indonesia, Iran, Jordan, Kyrgyzstan, Oman, Pakistan, Palestine, Philippines, Uzbekistan

Oceania (Pacific Islands): Fiji, Papua New Guinea, Marshall Island, Samoa

Africa: Angola, Benin, Ethiopia, Gambia, Ghana, Libya, Nigeria

Latin America & others: Argentina, Brazil, Colombia, Cuba, Mexico

9. Venue

Faculty of Environmental Management, Hatyai, Songkla / BP Samila Hotel

Chiang Mai: Le Meridian Hotel

Phuket: Royal Paradise Hotel

Bangkok: The Sukosol Hotel

10. Expected Result

The participant will be able to be a balancer in the future and join with the faculty of environmental management to produce at least one case of global warming solving in their countries.

11. Evaluation

Passed the case study and attend more than 90% of total training period

12. Institution

Funding will be supported by Thailand International Development Cooperation Agency, Ministry of Foreign Affairs

Fellowship Arrangements:

1. Application Procedures

- Applicants interested in participating in the course must be nominated by their government and must submit three (3) completed nomination forms to the Royal Thai Embassy or Consulate in their respective countries before the closing date of application.
- In general, each country may nominate up to four (4) nominees for the course. However, nomination for certain courses may be limited to one or two nominees from each country due to limited seat available for participation.
- The Royal Thai Government will inform the nominating government (or relevant authority) whether or not nominee(s) have been accepted for the course, normally three weeks before the course starts.
- Further information about training courses held under AITC can be obtained from TICA's website: <http://www.tica.thaigov.net/main>

2. Allowances and Expenses

The Royal Thai Government will be responsible for the following allowances and expenses:

- An economy class electronic ticket (e-ticket) will be issued to each participant via email. Each of the participants is not allowed to change the flights route and schedules. Participants should not buy air tickets by themselves and should be advised that if they do so, the cost cannot be reimbursed from the Royal Thai Government. The Royal Thai Government will also arrange the domestic flight in Thailand for participants, if any.
- Each participant will receive a living allowance of 500 Baht (US\$17) per day to cover meals, local transportation and other personal daily expenses. Accommodation will be arranged by the Royal Thai Government and all participants will stay at the same place. It is suggested that each participant should bring some pocket money approximately US\$100 to cover the expenses before the allowance is paid.
- Minor medical treatment will be provided for participants who become ill during their stay in Thailand.
- The Royal Thai Government will provide transportation for the authorized field trips undertaken as part of the course.

3. Regulations

Participants are required to observe the following regulations:

- Participants must only stay at the places designated by the Royal Thai Government.
- Participants must strictly attend classes as scheduled and should not change their training subjects.
- Participants must not extend the training period.
- Participants must not bring any family members with them to Thailand.

- Participants must return to their home countries after the course completion (at the date as scheduled by the Royal Thai Government).
- Participants are required to travel only on the route designated by the Royal Thai Government and must not make any alterations. Please also be informed that the maximum allowable baggage that can be loaded on flights is 20 kilograms. Participants will be responsible for any cost incurred in exceeding this limit.
- Participants must observe rules and regulations of training institute(s).
- Participants must refrain from engaging in political activities, or any form of employment for profit or gain.

4. Visa Procedures

Prior to departure from their home country to Thailand, all participants must first obtain the appropriate visa from the Royal Thai Embassy or Consular representative in their countries. Presentation of the acceptance letter is required when applying for VISA. A maximum of 2,000 Baht VISA fee (approximately US\$ 60) must be paid by a participant to the Royal Thai Embassy or Consular representative. Participants must request for the original receipt which could be later on reimbursed from the Royal Thai Government upon presenting the original receipt.

Further relevant information is available at the following addresses:

Human Resource Development Bureau (HRD Branch 2)

Thailand International Development Cooperation Agency
 The Government Complex
 Building B (South Zone) 8th Floor,
 Chaengwattana Road, Lak Si, Bangkok 10210
 Tel (662)203-5000 ext 43305
 E-mail: tica@mfa.go.th
 Website: <http://www.tica.thaigov.net/main>

Institution

Faculty of Environmental Management, Prince of Songkla
 4 doctoral instructors in field of sustainable development, global warming and sustainable energy development
 Contact Address and Person:
 Dr. Kuaanan Techato,
 Faculty of Environmental Management, Prince of Songkla University, Hadyai, Songkla, Thailand 90110, Tel + 66 7428 6843 Fax 66 7442 9758
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